


HOUSTON LIGHTING AND POWER  
SOUTH TEXAS PROJECT  
ELECTRIC GENERATING STATION  
PLANT PROCEDURES MANUAL

FEB 14 1994

STATION PROCEDURE

SAFETY-RELATED (O)

Control of Configuration Changes

OPGP03-ZM-0021

Rev. 5 (General)

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APPROVED:

*Al Pauling*

Plant Manager

2/7/94

Date Approved

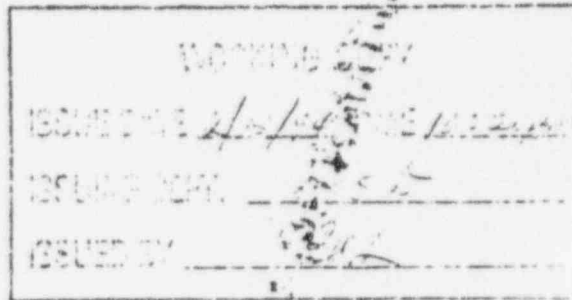
2-14-94

Date Effective

PROCEDURE USE CONTROL: AVAILABLE

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1.0 Purpose and Scope

1.1 Purpose

1.1.1 This procedure provides instructions for the control of temporary configuration changes to permanent plant equipment during maintenance and troubleshooting. It is not intended to be used as a means to track or document maintenance activities, this is the function of the applicable work document. It is intended as a method of tracking configuration changes such as switch or valve manipulations, lifted leads, the installation and removal of electrical or mechanical jumpers, fuses and blind flanges, performed in support of the maintenance or troubleshooting activity.

1.1.2 All activities involving removal/replacement/installation of permanent plant equipment fuses are governed by this procedure.

1.2 Scope

1.2.1 This procedure applies to configuration changes on permanent plant equipment except for:

1.2.1.1 Hoses from system drains to floor drains or sumps.

1.2.1.2 Normal service connections to Breathing Air, Station Air, Well Water, Service Water, Potable Water, and Demineralized Water.

1.2.1.3 Removal and reinstallation of plugs and pipe caps downstream of normally closed isolation valves.

1.2.1.4 All lighting systems outside the protected area. (SPR 921353)

1.2.1.5 Plant computers and associated equipment which are not part of safety-related systems. (SPR 921353)

a. Personal computers, printers, and supplemental equipment.

b. CADD systems and hardware.

c. LAN systems.

d. PRIME computer systems.

- 1.2.1.6 Plant communications equipment which is non-security communications equipment. (SPR 921353)
- a. Plant telephone system.
  - b. Plant PA system.
  - c. Plant paging system and beepers.
  - d. Radio base stations and portable radios.
  - e. Headphones.
- 1.2.2 The requirements of this procedure are not applicable when installing permanent design changes in accordance with approved design documents (i.e., DCNs, PCFs, ECNPs, etc.) or temporary modifications in accordance with OPGP03-ZO-0003 (Temporary Modifications).
- 1.2.3 Temporary trip setpoint adjustments and configuration changes on operable equipment shall be documented and approved per OPGP03-ZO-0003.
- 1.2.4 The requirements of this procedure are not applicable to Measuring and Testing Equipment (M&TE) unless the M&TE is being hardwired into the system.
- 1.2.5 Addendum 1 is not necessary if all the information normally entered on the form is required to be entered in the Work Document. All other requirements of this procedure shall apply.
- 1.2.6 The requirements of this procedure apply to plant computers and equipment which are required for operations or shutdown of the plant. This includes ERFDADS, PROTEUS, security computers, and 7300 control systems. (SPR 921353)

2.0 Definitions

- 2.1 **BLIND FLANGE:** A device installed in a mechanical system to stop flow. May also be referred to as a blank flange.
- 2.2 **CONFIGURATION CHANGE:** A variation in the required (i.e. designed) arrangement of permanent plant equipment.
- 2.3 **ELECTRICAL JUMPER:** An electrical connection that bypasses one or more components within an electrical circuit. (SPR 921518)
- 2.4 **LIFTED LEAD:** An electrical conductor utilized as an active system component that is temporarily disconnected.
- 2.5 **MECHANICAL JUMPER:** A temporary connection using spool pieces, hoses, tubing or piping that joins two or more fluid systems; or bypasses one or more components within a fluid system (gas or liquid).

3.0 Responsibilities

- 3.1 All personnel preparing work packages shall ensure the requirements of this procedure are incorporated into work instructions.
- 3.2 All personnel performing temporary configuration changes during maintenance or troubleshooting shall ensure the requirements of this procedure are met.

4.0 Procedure

4.1 Verification Requirements

4.1.1 The following verification criteria are the minimum requirements and shall be performed following the guidelines established in OPGP03-ZA-0010 (Plant Procedure Adherence and Implementation and Independent Verification). The actual verification requirements for a specific task may be increased by approved procedures or at the discretion of the planner, craftsman or work supervisor.

4.1.1.1 Self checking is the first line of defense for ensuring correct performance of a task. Personnel performing tasks are expected to use self checking techniques to aid in performing tasks correctly.

One Certified:  
- One Perform  
- Other Verify

4.1.1.2 The removal or installation of wires, jumpers, or other connections, or the manipulation of switches or breakers that may cause a plant trip, safety system actuation, or start of equipment if improperly accomplished or incorrectly identified shall require Dual Verification. (SPR 880088)

4.1.1.3 All configuration changes to components in systems listed in Addendum 2 to OPGP03-ZA-0010 shall have the restoration of the equipment to its original design configuration Independently Verified, unless due to the potential hazards involved, verification was performed as Dual Verification.

#### 4.2 General Requirements

4.2.1 Ensure electrical and mechanical jumpers (including any connections/hoses used for temporary gauges) are compatible for the use intended (e.g., size, terminal type, insulation, pressure rating, material, piping construction, etc.). (SPR 880248)

4.2.2 Appearance of electrical and mechanical jumpers shall be unique, such that they contrast with normally installed equipment (i.e., different color, tagged, labeled, etc.).

#### NOTE

Be alert for obvious deviations from design configuration (missing screws, plastic screws, etc.), termination connections for power, controls and instrumentation cables/hardware which may not conform to design documents or installation specifications. (SPR 890703)

4.2.3 When discovered, installation discrepancies shall be brought to the attention of the work supervisor.

4.2.4 All components involved in the configuration change that are not keyed or uniquely coded/labeled to ensure proper reinstallation SHALL be uniquely identified utilizing temporary markers. (SPR 900406)

