

# INFORMATION GUIDE FOR SUBSTATION OPERATIONS PHYSICAL PERFORMANCE TEST

**TEST #4028** 



#### INTRODUCTION

The **4028 Operator Trainee/Substation Operator Performance Test** battery is a performance test designed to cover several major physical abilities necessary to perform the job. The test battery is composed of three events. These three events are administered during a testing session. This Guide contains information that will assist you in taking the test battery, information about the test session, and information on preparing for each event.

#### **TEST SESSION**

It is important that you follow the directions of the Test Administrator exactly. If you have any questions about the testing session, be sure to ask the Test Administrator before the testing begins. During testing, you may **NOT** leave the testing area, smoke, or eat. The entire test session will take approximately 2 hours, so consider this before beginning the testing.

All cell phones or other electronic equipment will <u>NOT</u> be allowed in the testing area.

#### **TEST COMMENTS**

You will receive a Test Comment form so that you can make comments about test questions. Write any comments you have and turn it in with your test when you are done.

#### **INFORMATION GUIDE FEEDBACK**

At the end of this Guide you have been provided with an Information Guide Feedback page. If a procedure or policy has changed, making any part of this Guide incorrect, your feedback would be appreciated so that corrections can be made.



### **TEST SESSION PREPARATION**

During the physical performance test session, you will be completing a variety of physically demanding activities. The following information lists the clothes you must bring to the testing session, as well as critical participation guidelines.

#### WHAT TO BRING

If you feel confident about passing the test, you may lose some of your anxiety. Think of the test as a way of demonstrating how much you know, the skills you can apply, the problems you can solve, and your good judgment capabilities.

The test battery will be completed outdoors and will be very physical in nature. You will need to bring the following clothes to perform the test:

Closed toe, all-leather shoes that lace up, such as boots

Long sleeve, cotton shirt

Long pants

If you do not have the clothing listed here, you may not participate in the test, and your test session may not be rescheduled.

#### **PARTICIPANT GUIDELINES**

Preparation for the testing will help you perform your best on the day of the test. For this reason, we recommend the following:

Eat a small meal before arriving at the test session.

Do not eat within one hour of the scheduled time for your test session. This will allow for digestion of the food you ate.

Do not drink coffee, tea, or caffeinated soda within one hour of your scheduled test session time.

Do not smoke or use chewing tobacco within an hour of your session.

Drink water prior to and during your session.



### **TEST TAKING STRATEGIES**

Your emotional and physical state during the test may determine whether you are prepared to do your best. The following list provides information that you can use before the test begins.

#### CONFIDENCE

If you feel confident about your physical abilities, you may lose some of your anxiety. Think of the test battery as a way of demonstrating the physical abilities you possess.

#### PUNCTUALITY

Arrive early enough to feel relaxed and comfortable before the test battery begins.

#### CONCENTRATION

Try to block out all distractions and concentrate only on the test. Give your best effort on each of the events.

#### LISTENING

Listen carefully to all directions provided by the administrator. Follow the instructions and perform each event as quickly as you can in accordance with the instructions. If necessary, ask the administrator to repeat directions or answer questions you may have.

Remember to give your best effort on each event.

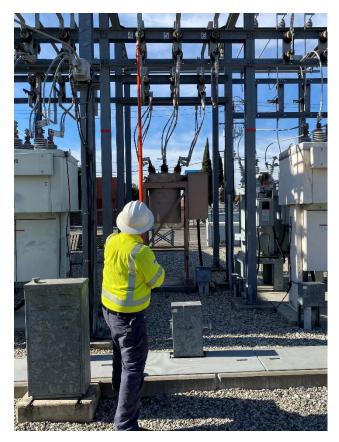


# PHYSICAL PERFORMANCE TEST BATTERY EVENTS

The 4028 Operator Trainee/Substation Operator Performance Test battery consists of three physical events. The purpose of this section is to provide an overview of the events in the test battery and information that may help during the testing. The three events that compose the 4028 Operator Trainee/Substation Operator Performance Test battery are described below.

#### 4-KV HOOKSTICK

This event evaluates your ability to open and close disconnects in a controlled and safe manner. You will be provided with a brief training that outlines substation equipment, and an opportunity to practice opening and closing a disconnect, before beginning the event. This reflects routine switching performed at a substation.



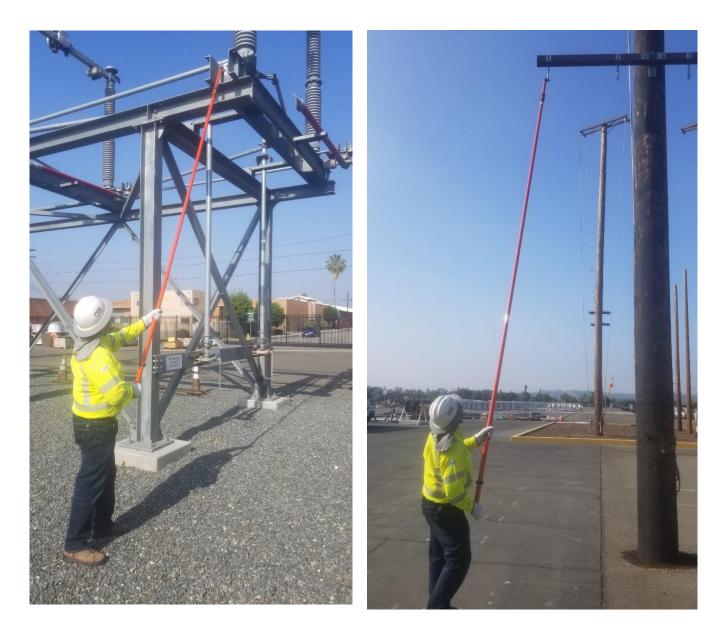
# **RECOMMENDED PREPARATION FOR 4-KV HOOKSTICK**

Exercises that build muscular strength and endurance in the upper and lower body, builds muscular strength and endurance in the torso/core area, and builds grip strength.



# **DISCONNECT POLE**

This event evaluates your ability to lift and maintain control of 12ft and 18ft disconnect poles, and accurately use the disconnect poles to touch markers. This reflects work performed on the job when conducting switching operations on substation equipment of various sizes.



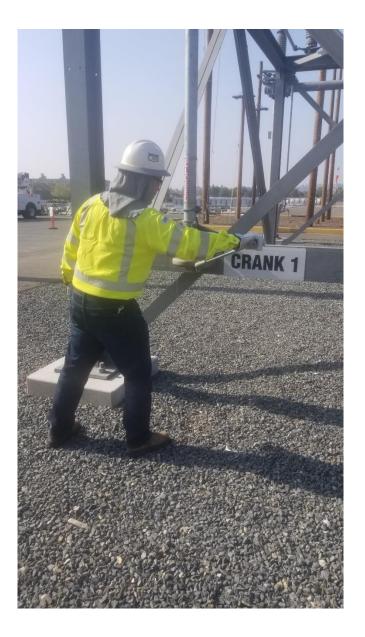
# **RECOMMENDED PREPARATION FOR DISCONNECT POLE**

Exercises that build muscular strength and endurance in the upper and lower body, builds muscular strength and endurance in the torso/core area, and builds grip strength.



# **DISCONNECT CRANK**

This event evaluates your ability to operate disconnect cranks. You will have an opportunity to practice rotating a disconnect crank prior to starting the event. This reflects work when opening and closing gang operated disconnects.



# **RECOMMENDED PREPARATION FOR DISCONNECT CRANK**

Exercises that build muscular strength and endurance in the upper and lower body, builds muscular strength and endurance in the torso/core area, and builds grip strength.



# PHYSICAL PERFORMANCE TEST BATTERY PREPARATION

The 4028 Operator Trainee/Substation Operator Performance Test involves demonstration of several physical abilities essential to work performed on the job. These are grip strength, upper and lower body muscular strength, muscular endurance, and aerobic capacity. The following exercises can help you increase your abilities in these areas. For safety purposes, consult your physician prior to engaging in any exercise program.

While there are many ways to develop or strengthen the physical abilities essential to this test and the work of the job, the chart below provides suggestions of exercises that can increase the general abilities needed by this position. Resistance training (weights) has been shown to produce the greatest increases in strength. Before beginning these exercises, complete the warm-up to prepare the muscles and joints for the physically demanding exercises. Following the exercises, perform the cool-down exercises. When performing exercises, do not hold your breath. Breathe normally.

#### WARM UPS

**Arm Circles.** Have the arms extended to the sides. Rotate the arms forward while increasing the size of the circle. Rotate the arms in the reverse direction and increase the size of the circle. Do 20 revolutions in each direction.

**March and Run in Place.** March in place for 30 seconds while lifting the knees. Follow with running in place for 30 seconds.

**Quad Stretch.** Grasp a stable surface with the right hand. Bend the right knee and grasp the right foot with the left hand. Pull the right heel toward the buttocks for 10-20 seconds. Repeat with the left leg.

**Single Arm Cross.** Grasp the left arm at the elbow with the right hand. Pull the left arm across the body at shoulder height with the palm facing down. Hold this position for 10-20 seconds. Repeat with right arm.

Hand Grip. Use a hand grip or tennis ball. Squeeze the grip with each hand 10 to 12 times.



# **UPPER BODY MUSCULAR STRENGTH & MUSCULAR ENDURANCE**

**Bicep Curls.** Place a dumbbell in each hand with the palms facing forward. Keep the feet shoulder width apart with the knees slightly flexed. Bend the elbows to lift the dumbbell to the shoulder. Keeping the elbows next to the torso, lower the weights to the starting position. To begin this exercise, select a weight that can be curled 4 to 8 times. Do two sets of 8-10 repetitions.

**Push-Ups.** Lie face down on the floor with the hands and feet shoulder width apart. Keeping the torso straight, push upwards with the arms until they are fully extended. Keeping the torso in alignment, lower to a position in which the elbows are flexed to 90 degrees, then extend the arms until the elbows are straight. Complete as many push-ups as possible.



# LOWER BODY MUSCULAR STRENGTH AND MUSCULAR ENDURANCE

**Wall Sit.** Stand with the back flat against a wall with the feet approximately 18-24 inches from the wall. Keep the back against the wall and lower the buttocks towards the ground until the knees reach a 90 degree angle. Hold this position for 30 or more seconds.

**Calf Raises.** Stand with the feet a few inches apart. Raise up by extending at the ankle and raising the heels off the floor. Do two sets of 8-10 repetitions.

**Leg Presses.** Using a Leg Press/Hack Squat Machine. Sit in a position in which the knees are bent to approximately 90 degrees when the feet are placed against the plate on the machine. Do two set of 8-10 repetitions. Select a weight that can be easily moved 4 to 8 times.

#### AEROBIC CAPACITY ENDURANCE

Bicycle. Bicycle at a high cadence (60 or more revolutions per minute) at a low to moderate friction or gear setting for 30 or more minutes, 3 times per week.

Run. Run for more than 20 minutes, 3 times per week.

#### COOL DOWN

**Quad Stretch.** Grasp a stable surface with the right hand. Bend the right knee and grasp the right foot with the left hand. Pull the right heel toward the buttocks for 10-20 seconds. Repeat with the left leg.

**Single Arm Cross.** Grasp the left arm at the elbow with the right hand. Pull the left arm across the body at shoulder height with the palm facing down. Hold this position for 10-20 seconds. Repeat with right arm.

**Modified Hurdlers Stretch.** Sit on the floor with the right leg extended. Bend the knee of the left leg and move the foot in toward the thigh of the other leg. Reach forward and attempt to touch the toes of the right foot. Hold this position for 10-20 seconds. Repeat with the left leg.



# STUDY GUIDE FEEDBACK

Please use this page to notify us of any changes in policies, procedures, or materials affecting this guide. Once completed, return to:

Southern California Edison, Corporate Testing

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