

Electrically Qualified Person Skills Assessment

NFPA 70E 2012 Definition of a Qualified Person

One who has skills and knowledge related to the construction and operation of the electrical equipment and installations and has received safety training to recognized and avoid the hazards involved.

NFPA 70E Article 110 (D) Employee Training

(1) Qualified Person

(a) Such persons shall also be familiar with the proper use of the special precautionary techniques; personal protective equipment including arc flash suit; insulating and shielding materials; and insulated tools and test

(b) Such persons permitted to work within the limited approach boundary of exposed energized electrical conductors and circuit parts operating at 50 volts or more shall, at a minimum, be additionally trained in all of the

(1) Skills and techniques necessary to distinguish exposed energized electrical conductors and circuit parts from other parts of electrical equipment.

(2) Skills and techniques necessary to determine the nominal voltage of exposed energized electrical conductors and circuit parts

(3) Approach distances specified in Table 130.4(C)(a) and Table 130.4 (C) (b) and the corresponding voltage to which the qualified person will be exposed.

(4) Decision-making process necessary to determine the degree and extent of the hazard and the personal protective equipment and job planning necessary to perform the task safely.

(f) The employer shall determine, through regular supervision or through inspections conducted on at least an annual basis, that each employee is complying with the safety-related work practices required by this standard.

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Qualified Person-1-(a) Such persons shall also be familiar with the proper use of the special precautionary techniques; personal protective equipment including arc flash suit; insulating and shielding materials; and insulated tools and test equipment.

(Can use Electrical Safe Working Practices Booklets)

PPE	OK	Not OK
Demonstrates ability to properly test 500V class 00 voltage rated gloves	<input type="checkbox"/>	<input type="checkbox"/>
Demonstrates ability to properly don 500V class 00 voltage rated gloves (removes conductive articles of clothing)	<input type="checkbox"/>	<input type="checkbox"/>
Demonstrates ability to properly don Level #0 Arc Flash PPE	<input type="checkbox"/>	<input type="checkbox"/>
Demonstrates ability to properly don Level #1 Arc Flash PPE	<input type="checkbox"/>	<input type="checkbox"/>
Demonstrates ability to properly don Level #2 Arc Flash PPE	<input type="checkbox"/>	<input type="checkbox"/>
Demonstrates ability to properly don Level #3 Arc Flash PPE	<input type="checkbox"/>	<input type="checkbox"/>
Demonstrates ability to properly don Level #4 Arc Flash PPE	<input type="checkbox"/>	<input type="checkbox"/>
Insulated tools	OK	Not OK
Demonstrates knowledge of when voltage rated tools are required	<input type="checkbox"/>	<input type="checkbox"/>
Test equipment	OK	Not OK
Can identify the maximum voltage rating of the multimeter	<input type="checkbox"/>	<input type="checkbox"/>
Demonstrates ability to inspect test leads and multimeter for defects prior to use	<input type="checkbox"/>	<input type="checkbox"/>
Demonstrates ability to plug test leads in correct sockets to read voltage	<input type="checkbox"/>	<input type="checkbox"/>
Demonstrates ability to set meter to correct setting to read AC voltage	<input type="checkbox"/>	<input type="checkbox"/>
Demonstrates ability to safely read an AC voltage	<input type="checkbox"/>	<input type="checkbox"/>
Demonstrates ability to plug test leads in correct sockets to read resistance	<input type="checkbox"/>	<input type="checkbox"/>
Demonstrates ability to set meter to correct setting to read resistance	<input type="checkbox"/>	<input type="checkbox"/>
Demonstrates ability to safely read resistance (meaning the circuit must be verified de-energized before proceeding)	<input type="checkbox"/>	<input type="checkbox"/>
Demonstrates ability to use resistance readings to correctly determine if a fuse is blown	<input type="checkbox"/>	<input type="checkbox"/>
Demonstrates ability to properly use a clamp-on ammeter to read motor current and interpret results	<input type="checkbox"/>	<input type="checkbox"/>

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Qualified Person-1-b(1) Skills and techniques necessary to distinguish exposed energized electrical conductors and circuit parts from other parts of electrical equipment.		
(Can use Electrical Safe Working Practices Booklets)		
Switchboards and Panelboards	OK	Not OK
Demonstrates ability to identify incoming conductors	<input type="checkbox"/>	<input type="checkbox"/>
Demonstrates ability to identify bus bars and breakers/ fused disconnect switches	<input type="checkbox"/>	<input type="checkbox"/>
Demonstrates ability to distinguish energized parts from de-energized parts	<input type="checkbox"/>	<input type="checkbox"/>
Demonstrates ability to identify Main Lug Only (MLO) from Main Breaker type switchboard or panelboard	<input type="checkbox"/>	<input type="checkbox"/>
Demonstrates ability to identify which circuit parts remain energized after properly de-energizing Main Breaker or Fused Disconnect Switch	<input type="checkbox"/>	<input type="checkbox"/>
Fused Disconnect Switches	OK	Not OK
Demonstrates ability to identify incoming conductors	<input type="checkbox"/>	<input type="checkbox"/>
Demonstrates ability to distinguish energized parts from de-energized parts	<input type="checkbox"/>	<input type="checkbox"/>
Demonstrates ability to identify which circuit parts remain energized after properly de-energizing Main Breaker or Fused Disconnect Switch	<input type="checkbox"/>	<input type="checkbox"/>
Motor Starters	OK	Not OK
Demonstrates ability to identify incoming conductors	<input type="checkbox"/>	<input type="checkbox"/>
Demonstrates ability to identify which circuit parts remain energized after properly de-energizing Breaker or Fused Disconnect Switch	<input type="checkbox"/>	<input type="checkbox"/>
Demonstrates ability to distinguish energized parts from de-energized parts	<input type="checkbox"/>	<input type="checkbox"/>
1) Can properly identify contactor and describe its basic operation	<input type="checkbox"/>	<input type="checkbox"/>
2) Can properly identify overload relay contacts terminations and describe basic operation	<input type="checkbox"/>	<input type="checkbox"/>
3) Can properly identify primary contacts and terminations (line and load side)	<input type="checkbox"/>	<input type="checkbox"/>
4) Can properly identify auxiliary contacts and terminations	<input type="checkbox"/>	<input type="checkbox"/>
5) Can properly identify control power transformer and identify its terminals and operating voltage	<input type="checkbox"/>	<input type="checkbox"/>
6) Can properly identify coil and identify its terminals and operating voltage	<input type="checkbox"/>	<input type="checkbox"/>

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Qualified Person-1-b(2) Skills and techniques necessary to determine the nominal voltage of exposed energized electrical conductors and circuit parts		
(Can use Electrical Safe Working Practices Booklets)		
Determining nominal voltage levels		
	OK	Not OK
Can identify the location and voltage level of the Utility Primary (i.e., 4160V, 12470V, 13,200V)	<input type="checkbox"/>	<input type="checkbox"/>
Understands that any work or exposure above 480V is prohibited	<input type="checkbox"/>	<input type="checkbox"/>
Can demonstrate through the use of drawings and/ or nameplate information the nominal voltage level expected	<input type="checkbox"/>	<input type="checkbox"/>
Can demonstrate the safe, proper use of a multimeter to measure the nominal voltage level	<input type="checkbox"/>	<input type="checkbox"/>

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Qualified Person-1-b(3) Approach distances specified in Table 130.4(C)(a) and Table 130.4(C) (b) and the corresponding voltage to which the qualified person will be exposed.

(Can use Electrical Safe Working Practices Booklets)

Task	OK	Not OK
Understands the requirements and restrictions of the Limited Approach Boundary	<input type="checkbox"/>	<input type="checkbox"/>
Can name the Limited Approach Boundary at 120V, 208V, 240V, 480V and the Utility Primary Distribution voltage (i.e., 4160V, 12470V, 13200V)	<input type="checkbox"/>	<input type="checkbox"/>
Understands the requirements and restrictions of the Restricted Approach Boundary	<input type="checkbox"/>	<input type="checkbox"/>
Can name the Restricted Approach Boundary at 120V, 208V, 240V, 480V and the Utility Primary Distribution voltage (i.e., 4160V, 12470V, 13200V)	<input type="checkbox"/>	<input type="checkbox"/>
Understands the requirements and restrictions of the Prohibited Approach Boundary	<input type="checkbox"/>	<input type="checkbox"/>
Can name the Prohibited Approach Boundary at 120V, 208V, 240V, 480V and the Utility Primary Distribution voltage (i.e., 4160V, 12470V, 13200V)	<input type="checkbox"/>	<input type="checkbox"/>

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Qualified Person-1-b(4) Decision-making process necessary to determine the degree and extent of the hazard and the personal protective equipment and job planning necessary to perform the task safely.

(Can use Electrical Safe Working Practices Booklets)

Task	OK	Not OK
Demonstrates ability to read, understand and don the proper PPE as listed on the Arc Flash and Shock Hazard Label	<input type="checkbox"/>	<input type="checkbox"/>
Demonstrates the ability to determine which tasks require Electrical Energized Work Permits	<input type="checkbox"/>	<input type="checkbox"/>
Demonstrates how to safely remove an individual from an energized circuit	<input type="checkbox"/>	<input type="checkbox"/>
Demonstrates how to safely open an electrical disconnect switch	<input type="checkbox"/>	<input type="checkbox"/>
Demonstrates how to determine if a circuit is de-energized	<input type="checkbox"/>	<input type="checkbox"/>
1) Wears proper PPE	<input type="checkbox"/>	<input type="checkbox"/>
2) Demonstrates proper use of multimeter to measure voltage	<input type="checkbox"/>	<input type="checkbox"/>
3) Checks for visual indication that disconnect is open	<input type="checkbox"/>	<input type="checkbox"/>
4) Tests multimeter for proper operation on known energized circuit	<input type="checkbox"/>	<input type="checkbox"/>
5) Tests each conductor phase to phase	<input type="checkbox"/>	<input type="checkbox"/>
6) Tests each conductor phase to ground	<input type="checkbox"/>	<input type="checkbox"/>
7) Tests multimeter for proper operation on known energized circuit	<input type="checkbox"/>	<input type="checkbox"/>