



## **Performance Verification Packet**

### *Industrial Electrician V3*

PVELEC26\_03

Performance verification tasks will be processed by NCCER within five business days, after submission by the administrator. Check with your administrator with any questions regarding submission or approval.

## **Performance Verification Form**

### **How to fill out and file your information**

#### **Participant**

- 1) Print your last name, first name, and social security number.
- 2) Print your company name, current employer, and the state where your employer's main office is located.
- 3) In the space provided for "Participant Signature," sign your name and enter the date you signed the form.

#### **Performance Evaluator**

- 1) In the space provided for "Site Code," enter the postal zip code of the location where the performance verification is being conducted.
- 2) In the column provided for "Date," enter the date the participant completed each of the tasks. This date is important because there may be times a participant does not complete a performance verification in one day.
- 3) In the space provided for "Performance Evaluator," sign your name.
- 4) In the space provided for "Date," next to your signature, list the date the participant successfully completed all of the tasks.

#### **Administrator**

- 1) In the space provided for "Administrator," sign your name. Your signature indicates that the performance evaluator is certified to conduct this performance verification and that it was conducted within the guidelines of the NCCER.
- 2) In the space provided for "Date", next to your signature, list the date that this performance verification form is being sent to the NCCER for entry into the National Registry.
- 3) In the space provided for "Accredited Assessment Center," print the name of the accredited assessment center that is conducting this performance verification.

**Last Updated: May 29, 2011**  
**NCCER**

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**NCCER PERFORMANCE EVALUATOR CHECKLIST  
INDUSTRIAL ELECTRICIAN**

Date Completed    Task To Perform

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\_\_-\_\_-\_\_    1.    Conduit Bending (Task#1)

- 15" rise  $\pm$  1/2"
- 90°  $\pm$  5°
- 90° is vertical
- Offset rise  $\pm$  1/2"
- No dogleg in offset bend
- Offset goes over obstacle

Conduit Bending (Task#2)

- All angles are 90 degrees
  - No offsets in bends
  - Conduit / fixtures connected properly
  - Conduit Properly secured to surface
- 

\_\_-\_\_-\_\_    2.    Using Test Equipment

- Test leads connected properly
  - Selector switch correctly set
  - Voltage, resistance and current values recorded correctly
  - Megger zeroed on first attempt
- 

\_\_-\_\_-\_\_    3.    Identify Fittings

- Twelve (12) of fifteen (15) fittings correctly identified (spelling is not critical)
- 

\_\_-\_\_-\_\_    4.    Wire Transformer

- ALL wires must be connected in proper location
- 

\_\_-\_\_-\_\_    5.    Connect Start/Stop Station to Starter

- ALL wires connected according to schematic
- 

\_\_-\_\_-\_\_    6.    Pack/Seal a Hazardous Location Fitting

- Fitting does not leak
- 

\_\_-\_\_-\_\_    7.    Safety

- Used PPE
- Practiced good safety procedures

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## NCCER PERFORMANCE VERIFICATION CANDIDATE SUMMARY INDUSTRIAL ELECTRICIAN

### Objective

The candidate will demonstrate the ability to bend rigid conduit, use a volt OHM milliampere meter (VOM), wire a transformer, connect a motor starter, seal a fitting and identify common fittings. The candidate must complete these key tasks within four hours to be successful.

### Scope

**This Performance Verification provides a means to observe and evaluate competencies in the following areas:**

- Conduit bending
- Use of electrical test equipment
- Identifying fittings
- Wiring a transformer
- Connecting a motor starter
- Packing/Sealing a hazardous location fitting

### Materials Required

- Appropriate Personal Protective Equipment
- Minimum 25' of  $\frac{3}{4}$ " rigid metallic conduit
- Conduit bender
- Conduit cutting and threading equipment
- Volt OHM Milliamp Meter (VOM) with leads
- Megger with leads
- Resistor or other device of known value
- Fitting (15 different common boxes or fittings, such as: EYD seal, EYE seal, LB conduit fitting, GUAT fitting, Union, spring nut, etc.)
- Transformer

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**NCCER PERFORMANCE VERIFICATION CANDIDATE SUMMARY**  
**INDUSTRIAL ELECTRICIAN**

**Materials Required (continued)**

- (A) Single phase 480-120/240 or three phase 480-120/208
- Wire
  - 6 labeled Primary
  - 6 labeled Secondary
  - 6 labeled Grounded
  - 6 labeled Grounding or Bonding
  - 2 unlabeled
  - (Any type of termination may be used – even alligator clips)
  - 7 conductor #14 cable with alligator clips
- 4 jumper wires with alligator clips
- 3 wire start/stop station
- Starter
- Wire labels or number pack
- Hazardous location seal and packing kit (1") also; 2 conduit nipples
- GFCI-protected power source

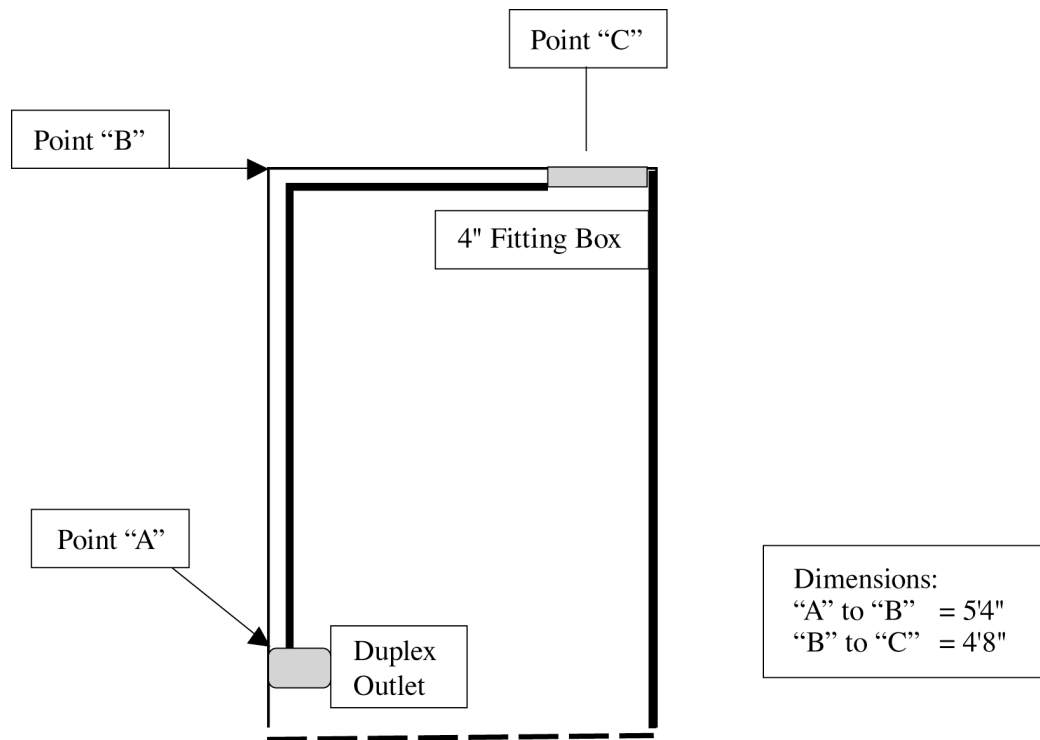
**Time Required**

Four hours performance, including clean-up.

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**Task:** Measure, cut, thread, bend, connect, and secure conduit to fixtures as shown in the diagram. Performance Evaluator will provide “take-up” of conduit bender you will be using. All angles are to be 90 degrees. Assume that conduit is to be attached to wall surface with conduit straps.

**Note:** Based on your work site your evaluator may ask you to lay this “job” out on a flat surface. In this case you will be required to maintain dimensions but instead of using straps you would only need to locate where straps would be placed. All other requirements of this task must be met.

### Task Sheet “A” Conduit Bending

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**PERFORMANCE VERIFICATION FORM  
INDUSTRIAL ELECTRICIAN – ELEC26\_03 - CRAFT**

Candidate information		
_____	_____	_____
Last Name	First Name	Social Security Number
_____	_____	_____
Employer/Company Name	State	Code
Evaluator		
_____	_____	_____
Last Name	First Name	Social Security Number

Task Number	TASK	DATE (MM/DD/YY)	START TIME	END TIME
01	Conduit Bending (Module 26204-08)			
02	Conduit Bending (Module 26204-08)			
03	Using Electrical Test Equipment (Module 26112-08)			
04	Identify Fittings (Module 26205-08)			
05	Wire a Transformer (Module 26307-08)			
06	Connect Three-wire Start/Stop Station (Module 26311-08)			
07	Pack/Seal a Hazardous Locating Fitting (Module 26304-08)			
08	Safety (Module 26102-08)			

**Consent/Release:** I, the undersigned, do hereby authorize the National Center for Construction Education and Research (NCCER) to release the information and results attained through the administration of the National Craft Assessment and Certification Program (NCACP) to the organization referenced below, and acknowledge that the employer noted above is my present employer.

**Accredited Assessment Center:** \_\_\_\_\_

**Participant:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Performance Evaluator:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Administrator:** \_\_\_\_\_ **Date:** \_\_\_\_\_