

Jim Boyd, PhD – Assistant Executive Director – electrical training ALLIANCE

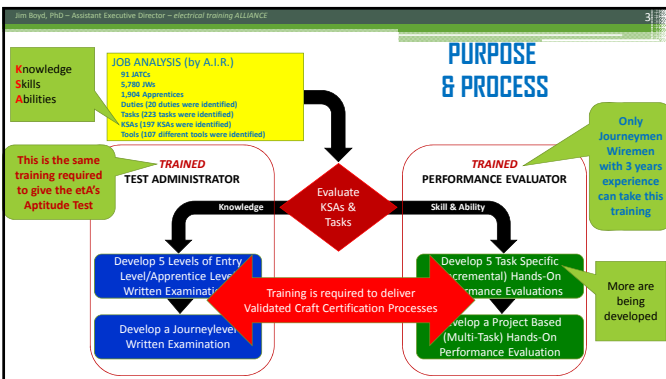
Craft Certification

Verifying Learning and Performance

Jim Boyd, PhD – Assistant Executive Director – electrical training ALLIANCE

Craft Certification

- **Craft Certification** is a way to verify that evaluated individuals have the knowledge, skills, and abilities necessary to efficiently and safely perform electrical work on IBEW/NECA projects.
 - Any Certification must be based on a commonly agreed upon standard.
 - The Craft Certification Standard used by the Electrical Training ALLIANCE to evaluate electrical worker knowledge and performance was developed through an industry-wide Job Analysis.
 - The Job Analysis was designed and executed by the American Institutes for Research, a nationally recognized research organization.
 - The Job Analysis involved feedback from 91 JATCs, 5,780 Journeymen Wiremen and 1,904 Apprentices.
- The data collected was used to create the different levels of Written (knowledge) Examinations and Hands-On (skill & ability) Performance Evaluations.



Jim Boyd, PhD - Assistant Executive Director - electrical training ALLIANCE

Craft Certification

Changes and Updates

Craft Certification consists of:

- **Written Examinations**
- **Performance Evaluations**

While the basics of Craft Certification remain the same

- Written Examination procedures have changed and written exams are now delivered through the LMS
- Performance Evaluations Scoring and Procedures have changed and a new Online Performance Evaluation Web Solution has been developed

Jim Boyd, PhD - Assistant Executive Director - electrical training ALLIANCE

Craft Certification

There are six levels of Written Examinations in the LMS

- Levels 1-5 are called Incremental Craft Certification Examinations
- In the past Written Exams were base solely on the Job Analysis
- New Exams align with the Core Curriculum and only address Core Courses
- The Level 6 or Journeylevel Craft Certification Examination
- Addresses the same topics covered in the Level 1-5 examinations
- The JW Exam provides a higher or final level written examination

Jim Boyd, PhD - Assistant Executive Director - electrical training ALLIANCE

Craft Certification

Incremental Performance Evaluations

- Incremental Evaluations focus on one or a few tasks
- Previously there were only five Incremental Evaluations
- They were all provided in a single package (PEVALI)
- Now, Incremental Evaluations are being redesigned in separate packages (CCPE.xxx) and more are being created

Jim Boyd, PhD - Assistant Executive Director - electrical training ALLIANCE 7

Craft Certification

CCPE.TCFCI
Thinwall Conduit Fabrication and Conductor Installation

Modified to allow the evaluator to specify circuit numbers for each evaluation to add variations in the evaluation

Used to be Level 1

CCPE.TCFCI CIRCUIT DESIGNATIONS

Use the following circuits for your evaluation:

- Circuit 1 (Single-Phase Circuit) _____
- Circuit 2 (Single-Phase Circuit) _____
- Circuit 3 (Three-Phase Circuit) _____
- Circuit 4 (Single-Phase Circuit) _____

Jim Boyd, PhD - Assistant Executive Director - electrical training ALLIANCE 8

Craft Certification

CCPE.BCDI
Branch Circuit and Device Installation

Modified to allow the evaluator to specify circuit numbers and dimensions for each evaluation to add variations in the evaluations

Used to be Level 2

REFER TO THE FIGURE BELOW FOR PROJECT DIMENSIONS AND CIRCUIT DESIGNATIONS

SIZE LAYOUT DRAWING

Use the following circuits for your evaluation:

- Circuit 1 (Single-Phase Circuit) _____
- Circuit 2 (Single-Phase Circuit) _____
- Circuit 3 (Three-Phase Circuit) _____
- Circuit 4 (Three-Phase Circuit) _____

Jim Boyd, PhD - Assistant Executive Director - electrical training ALLIANCE 9

Craft Certification

CCPE.TI
Transformer Installation

Modified to allow the evaluator to specify the size of the transformer for each evaluation and the configuration for the evaluation

Used to be Level 3

YOUR TRANSFORMER EVALUATION MUST BE COMPLETED USING THE CONFIGURATION INDICATED BELOW

Option 1	Option 2	Option 3	Option 4
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Jim Boyd, PhD - Assistant Executive Director - electrical training ALLIANCE 10

Craft Certification

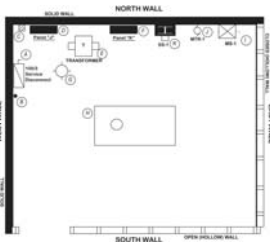
CCPE.MCMI Motor Control and Motor Installation Modified Level 4	CCPE.FASI Fire Alarm System Installation Modified Level 5	CCPE.PDI Panelboard and Device Installation NEW	CCPE.GBI Grounding and Bonding Installation NEW
--	--	---	---

Other Incremental Evaluations Being Planned
 Temporary Service Installation, Structured Cabling Installation, Torqueing Applications, Hazardous System Installation, Remodel Work Installations

Jim Boyd, PhD - Assistant Executive Director - electrical training ALLIANCE 11

Craft Certification

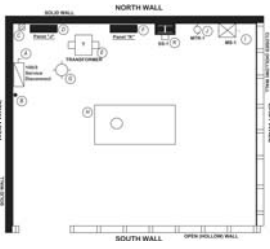
- Journeylevel Evaluation
- 4-Hour Evaluation
- Completed in a 10-foot x 12-foot booth with some pre-installed components
- Include multiple systems
 - 480 V 3Ø Service
 - 30 kVA Transformer
 - 480 V Primary - 120/208 V Secondary
 - Branch Circuit Lighting and Receptacles
 - 480 V 3Ø Motor Control with Remote Start-Stop
 - Safety and Workmanship



Jim Boyd, PhD - Assistant Executive Director - electrical training ALLIANCE 12

Craft Certification


- Evaluation Candidate
 - Checks for voltage (Lockout/Tagout)
 - Wires the Transformer
 - Primary and Secondary including OCP
 - Bonding and Grounding
 - Installs Conduit and Wiring
 - Motor Power
 - Duplex Receptacle
 - Installs Receptacles, Switches, Fixtures
 - Installs a MC circuit
 - Remote Start Stop
 - 3Ø Motor
 - OCP and OL
 - Works Safely



Jim Boyd, PhD - Assistant Executive Director - electrical training ALLIANCE 13

Craft Certification Online Scoring

- New Online Scoring
 - Two roles
 - Training Center Manager
 - Performance Evaluator
 - Requires all users to be
 - Registered
 - Trained
 - Provides additional tools to the evaluator or training center manager
 - Uses the same scoring matrix used in the etA Scoring process
 - Provides Immediate Scoring



Jim Boyd, PhD - Assistant Executive Director - electrical training ALLIANCE 14

Craft Certification Performance Evaluation

Ellie Dog
 Home Evaluation Ellie Dog

Evaluation Branch Circuit and Device Installation ...

Evaluation	Program	Evaluator	Reviews	Status
May 15, 2019	etA	James Boyd		In Progress

Scoreboard Photos Comments Results

Evaluation Scoresheet

Endorse and Conduit Installation

Topic	Pass	Theory	Code	Work	Bonus	Notes
2.1. Box "1" is the correct type of box per specifications and is mounted in the correct position.	<input checked="" type="checkbox"/>					
2.2. Box "2" is the correct type of box per specifications and is mounted in the correct position.	<input checked="" type="checkbox"/>					
2.3. Box "3" is the correct type of box per specifications and is mounted in the correct position.	<input checked="" type="checkbox"/>					
2.4. Box "4" is the correct type of box per specifications and is mounted in the correct position.	<input checked="" type="checkbox"/>					Enter message and
2.5. Box "5" is the correct type of box per specifications and is mounted in the correct position.	<input type="checkbox"/>					
2.6. Conduit is not properly installed.	<input type="checkbox"/>					

Jim Boyd, PhD - Assistant Executive Director - electrical training ALLIANCE 15

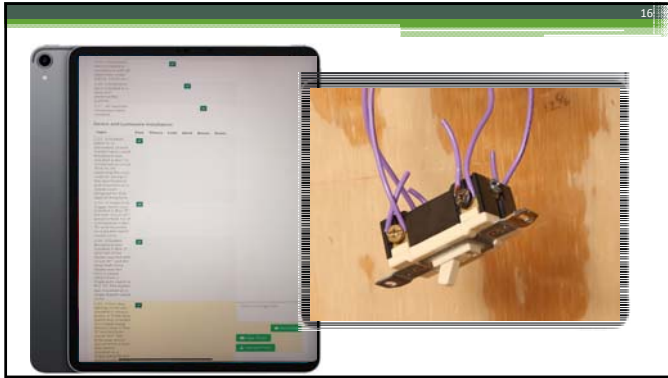
Craft Certification

2.14. Is Double Breakdown with a One Half of the duplex over half a one whole half the duplex and above from a single wire pinched. Insulation was installed on a single wire.

2.15. Is there any left over conductors, or there any back strings being used under the "B" box? This conductor should have been trimmed back to a three way in a double break down box. The three way should not be used in a double break down box.

Insulation was not trimmed back correctly and was partially pinched under the screw on the switch.

was partially pinched under



17

Jim Boyd, PhD - Assistant Executive Director - Electrical Training ALLIANCE

Craft Certification Performance Evaluation

Ernie Dog

name Evaluation Who Did

TOTAL SCORE 80%

Recommendations		
General Qualification		RECOMMEND NOT REQUIRERD
General		RECOMMEND NOT REQUIRERD
Technical Code		RECOMMEND NOT REQUIRERD
Reading Installation		RECOMMEND NOT REQUIRERD
Circuit Theory		RECOMMEND NOT REQUIRERD
Drawings and Specifications		RECOMMEND NOT REQUIRERD
Safety		RECOMMEND NOT REQUIRERD
Instrumenting		RECOMMEND NOT REQUIRERD
FINAL RECOMMENDATION		
General		80%
Technical Code		100%
Reading Installation		75%
Circuit Theory		100%
Drawings and Specifications		100%
Safety		100%
Instrumenting		100%
TOTAL SCORE		80%

- 18
- Jim Boyd, PhD - Assistant Executive Director - Electrical Training ALLIANCE
- In addition to the new CCPE.xxx Performance Evaluations, All Existing Evaluations Forms can be scored online
 - Level 1
 - Level 2
 - Level 3
 - Level 4
 - Level 5
 - JW Level

NEW Low Voltage / Installer Technician Performance Evaluations

- The etA is working with select JATCs to develop Performance Evaluations for Low Voltage Systems
 - Conduit Fabrication and Structured Cabling Installation
 - Cat5e Voice and Data Cabling System Installation
 - Punch-Down and Data Jack Installation
- In addition, some existing (revised) Incremental Evaluations will be applicable for some JATC Installer/Technician evaluations
 - Fire Alarm System Installation
- Installer-Technician Performance Evaluations will be packaged individually and will be available with other CCPE.xxx evaluations.

Craft Certification

- Craft Certification is a Tool which allows JATCs to:
 - Verify that workers have necessary skills to perform on the job
 - Verify that learners are being presented with good and accurate training
 - Have a means to measure apprentice growth and to advance those apprentices to the next level of training