

CALIFORNIA APPRENTICESHIP COUNCIL

ROOFING INDUSTRY

ADVISORY COMMITTEE

ROOFING & WATERPROOFING

Industry Training Criteria

O*Net Code: 47- 2181.00

ROOFING AND WATERPROOFING INDUSTRY

Minimum Industry Training Criteria

O*Net Code: 47- 2181.00

1. Length of Training

Program sponsors shall establish a minimum of a 42 month program of not less than 4,000 hours of on-the-job training.

2. Related Supplemental Instruction

The required prescribed courses of related and supplemental instruction shall be no less than 144 hours per year. This instruction must include at a minimum the related and supplemental training processes listed in Exhibit "A".

3. On-the-job Training

Skills to be learned. See Exhibit 'B'.

4. Competency Testing

Program sponsors shall establish written testing procedures for evaluating the readiness of apprentices to advance from one period of apprenticeship to the next. The competency of apprentices shall be measured according to their knowledge of Related and Supplemental Instruction topics and mastery of applicable skills.

5. Completion Percentages

Program sponsors must have a graduation rate of at least 20% of those apprentices who satisfactorily complete the program's probationary period consisting of 1,000 on the job training hours and 72 hours of classroom instruction. "Graduation" means that an apprentice has completed the program and has been awarded a state trade certificate. The "graduation rate" is to be calculated according to the formula presented in Exhibit "C".6.

6. Revisions

The schedule for revisions to the Roofing Industry minimum training criteria be in accordance with 8CCR 212.01 (c)

EXHIBIT "B"

ON THE JOB TRAINING

The work processes in which the apprentice shall be trained are as follows. Work processes will not necessarily be in the order listed nor will they necessarily be continuous.

WORK PROCESSES-ROOFERS / WATERPROOFERS

APPROXIMATE
HOURS

A. **Preparation** (may include, but not limited to the following)

800

- 1) Removal of membrane or roof system:
 - *Separation of debris into recyclable categories*
- 2) Prepare the deck, substrate, foundation or slab, including necessary repairs and fastening
- 3) Load Roof of various types of roofing materials and equipment •
- 4) Measure and cut various materials
- 5) Drainage

* No more than 50% of work hours can be in any one subcategory (A , B & C)

B. **Application** (may include, but not limited to the following)

2400

- 1) Built-up
- 2) Insulation
- 3) Shingle systems
- 4) Single Ply Systems
- 5) Tile & Rigid Materials
- 6) Metal roofing
- 7) Flashings & Roofing Accessories
- 8) Damp proofing/Moisture Barriers, Retarders, Liners and Protection • Waterproofing
- 9) Caulking, Sealants and Injectable Systems
- 10) Fluid Applied Systems
- 11) Foam/Spray systems
- 12) Ballast & Pavers
- 13) **30-Year EPDM—energy efficient**
- 14) **Maintenance around Photovoltaic Assemblies**
- 15) **Living Roofs/Green Roof Systems**

C. **Miscellaneous** (may include, but not limited to the following)

800

- 1) Job planning and safety o Repairs
- 2) Maintenance
- 3) Kettle /Tanker use and safety
- 4) Equipment use and Safety
- 5) Integrated Solar, Photovoltaic Systems

Total4000

EXHIBIT "C"

Computational Basis For Determining Annual Completion Ratios For Graduating Roofing Apprentices

Basis: The annual completion ratio for each current year is reckoned on the previous average four years of indentured apprentices into the program, adjusted for probationary term drop outs of indentures with less than 1000 hours in the program, and an annualization factor adjustment for the number of 6 month steps (7 steps for this trade) which is labeled as (SA) for "step adjustment."

The factors:

AAI	=	Annual Apprentices into program
PPD	=	Percentage of Apprentices Discharged Prior to 1000 hrs probation period.
SA	=	Step adjustment
AAA	=	Four (4) year average of apprentices (minus step adjustment) indentured.
ACA	=	Annual Completion Average (measured year back four)
CP	=	Completion Percentage

Formula:

$$CP = \frac{ACA}{AAA-PPD}$$

Below is an "Access" generator showing possible results based on the above factors:

The screenshot shows a software window titled "Apprentice Program Stats" with a close button (X) in the top right corner. The window contains several data fields and buttons. At the top, there are buttons for "Year Lookup:" (set to 2004), "Year:" (set to 2005), "Add Yr", "Prev Yr", and "Next Yr". Below these are several data fields arranged in two columns. The left column contains: "Apprentices Entering Program During Year:" (175), "Apprentices Discharged from Program During Year:" (85), "Apprentices Completing Program During Year:" (35), "Annual Apprentices In (AAI):" (181), "Annual Step Adjustment (SA):" (14.28%), and "Adjusted Annual Avg (AAA):" (155). The right column contains: "Appr Entering--4 Yr Avg:" (181), "Appr Discharged--4 Yr Avg:" (83), "Appr Completing--4 Yr Avg:" (39), "Percentage of Appr Discharged (PPD):" (45.86%), "AAA Less PPD:" (84), "Annual Completion Average (ACA):" (39), and "Completion Percentage (CP):" (46.43%).


Field	Value
Year Lookup	2004
Year	2005
Apprentices Entering Program During Year	175
Apprentices Discharged from Program During Year	85
Apprentices Completing Program During Year	35
Appr Entering--4 Yr Avg	181
Appr Discharged--4 Yr Avg	83
Appr Completing--4 Yr Avg	39
Annual Apprentices In (AAI)	181
Annual Step Adjustment (SA)	14.28%
Adjusted Annual Avg (AAA)	155
Percentage of Appr Discharged (PPD)	45.86%
AAA Less PPD	84
Annual Completion Average (ACA)	39
Completion Percentage (CP)	46.43%

ROOFING AND WATERPROOFING INDUSTRY

ROOFING INDUSTRY ADVISORY COMMITTEE

Signature Page:

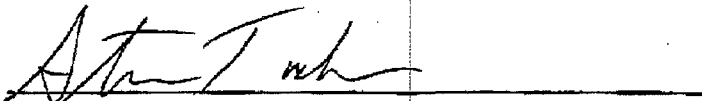
Unilateral Program



John Upshaw, Chair

Date: September 29, 2010

Union Labor Management:



Steve Tucker

Date: 9/29/2010