Job-Task Analysis (JTA) for ACI Certification of Adhesive Anchor Installer

**Assessment Methods:**

- **W** = Assessed on written examination
- **P** = Assessed on performance examination

**RESOURCES:**

- ACI-CRSI Adhesive Anchor Installer Workbook, CP-80

### Preparing for Installation – Chapter 2

- **W** Verify that adhesive is suitable for the intended application (dry, water-filled, submerged, overhead)
- **W** Review manufacturer’s printed installation instructions (MPII)
- **W** Review material safety data sheet (MSDS)
- **W** Select appropriate personal protective equipment (PPE)
- **W** Verify concrete temperature falls within range for selected product
- **W** Evaluate concrete condition, age, cracks, expansion joints, thickness, etc. (Chapter 4)
- **W** Verify and layout anchor locations according to specifications

### Drilling Anchor Holes – Chapter 3

- **W** Adjust equipment components according to specifications
- **W** Take appropriate action if drilling hits reinforcing steel or other obstructions
- **P** Drill hole perpendicular to concrete
- **W & P** Determine proper depth, diameter, and rod size for hole according to specifications
- **W & P** Select appropriate drilling machine and bits as per manufacturer specifications
- **W & P** Verify appropriate dust extraction system and accessories are available and working
- **W & P** Verify that hole depth and diameter meet pre-determined specifications

### Cleaning Anchor Holes – Chapter 4

- **W** Determine appropriate cleaning method per manufacturer instructions
- **W** Remove water-concrete particle slurries
- **P** Visually inspect debris coming from hole during drilling
- **W & P** Select appropriate equipment to clean holes
- **W & P** Remove debris from drill hole using appropriate cleaning method
- **W & P** Engage dust extraction system with accessory to capture dust during blow-out of drilled hole

### Injecting Adhesive Using Cartridge Systems – Chapter 5

- **W** Determine appropriate adhesive working (gel) time
- **W & P** Verify adhesive expiration date
- **W & P** Identify cartridge storage temperature requirements
- **W & P** Verify that proper nozzle is selected with complete mixing element
- **W & P** Assemble adhesive cartridge and nozzle per MPII
- **W & P** Confirm that hole is clean prior to injecting adhesive
- **W & P** Insert adhesive assembly into dispenser
- **W & P** Select equipment suitable for installation location (horizontal to overhead)
- **W & P** Discard initial adhesive and confirm proper mixing
- **W & P** Inject adhesive per MPII (rate, application, method, avoid air entrapment)
- **W & P** Determine minimum depth of adhesive fill
Installing Anchors – Chapter 6

- W Identify most appropriate installation technique per MPII
- W Select the anchor appropriate for the adhesive system in use
- W & P Inspect anchor element for contaminants and clean if needed
- W & P Inspect anchor element for damage and replace if needed
- W & P Insert anchor element into borehole per MPII
- W Take corrective action if air pockets are noted during installation
- W & P Verify accurate final embedment depth based on length of protruding anchor element
- W & P Verify that adhesive fills hole uniformly around the anchor, approximately flush with surface
- W Ensure that anchor remains undisturbed until adhesive is fully cured

Installing Adhesive Capsule Systems – Chapter 7

- W Verify adhesive expiration date
- W Identify capsule storage temperature requirements
- W Confirm that material has not solidified inside capsule
- W Confirm that hole is clean prior to capsule insertion
- W Insert capsule into hole per the MPII