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Docket Number:	17-EBP-01
Project Title:	Improving Energy Compliance of Central Air-Conditioning and Heat Pump Systems
TN #:	224430
Document Title:	Randy Young's Aug 3 Workshop slides
Description:	N/A
Filer:	Judy Roberson
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	8/7/2018 10:09:30 AM
Docketed Date:	8/7/2018

Randy Young

WORKFORCE TRAINING

Why is training necessary

- To ensure systems are designed and installed properly
- To ensure the highest level of quality installations.
- To assist the State of California in reaching its energy savings goals.
- To ensure we have a fully trained competent workforce for the future.

What we know



Improperly installed systems.

- Causes the unit to work harder.
- Does not deliver airflow as designed.
- Decreases the life expectancy of the unit.
- Ends up costing end users \$\$\$ in energy bills, and replacement costs.
- Causes hot or cold spots in buildings.

The problem is significant



What would training look like?



Sacramento JATC Training occupations.

- Sheet Metal Worker/Energy Management Technician
- Sheet Metal Service Technicians
- Residential Sheet Metal/ Service Technician
- Air balance and Testing Technician
- Sheet Metal worker.

Sheet Metal Worker/Energy Management Technician

- Standards posted and approved with the state.
- Work Processes monitored by the state.
- Class room time and on the job learning.(8000 Hrs)
- Mentoring under industry professionals for 5 to 6 years.
- Internal audits to ensure standards are being met.

Training processes covered

- General Sheet Metal Work including; 200 hrs
- Operation of machine ,tools and power equipment.
- Lay out/Fabrication.
- Welding
- Installation of Ducts, housing, plenums, mixing boxes, grilles ,registers, diffusers and Louvers.
- Duct design and air flow.
- Title 24 training
- Commissioning.
- SMACNA, ACCA,CMC and all nationally recognized HVAC standards.

Industrial Heating and Cooling.

- Equipment erection.
 - Installation.
 - Maintenance.
- 500 hours of training required.

Energy Audit and modification.

- Building Systems Overview. And energy cost reduction.
 - Human Comfort systems.
 - Energized and non energized systems.
 - Total system operation.
 - Heat exchange- theory and application.
 - Utility bill analysis.
 - Load Management.
 - Lighting analysis.
- 2200 Hours of training required.

Residential and Commercial HVAC

- Installation of duct and equipment.
 - Maintain, service and repair of HVAC systems.
 - Install, maintain, service and repair venting equipment, including those in kitchens, toilets and industrial exhaust.
- 2700 hours of training required.

Testing and balancing

- Air handling equipment.
- Air handling ducts and systems.

850 hours of training required.

Blueprint reading, materials, takeoffs, estimating, lay out and control systems, additional 850 hours required.

Disclaimer

- The contents of this presentation are based solely on the Sacramento Area JATC published training standards for a Sheet Metal Worker/ Energy Management Technician. These are the hours associated with this category of worker within my organization.
- This program is managed by equally by labor and management. This means contractors are at the table with a voice in the training which is relevant to this industry.