

AEA's Energy Management Training Center

Anna Sullivan
Association for Energy Affordability, Inc. (AEA)

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New York Training and Technical Assistance

- NYS HCR and DOE Weatherization Training Center (WTC)
 - Association for Energy Affordability, Inc. (AEA) located in Bronx, Mid-town, and West Coast
 - WTC contracted by NY State WAP to develop and deliver WAP training and TA to sub-grantees
 - AEA awarded DOE WTC grant under ARRA to expand national multifamily training
- Training Portfolio
 - Weatherization Technical Training and Program Management
 - National BPI Training and Certification Test Center
 - OSHA 10 Hour for Construction Workers
 - NYC – Integrated Pest Management and Rodent Management
 - HPD - Property Management Training
 - NYCHA – Superintendent Training
 - Air Barrier Association of America (ABAA) Training
 - Passive House Training
 - G-PRO (USGBC, Urban Green) Training and Certification







AEA Training & TA Division

- Main Office and Training Center in the Bronx, NY
 - 30,000 sf state of-the-art facility with live-fire boiler lab and multifamily pressure house
 - Scotch marine and cast iron sectional boilers, condensing boilers and DHW systems
 - Multifamily pressure house
 - Computer lab and 5 classrooms
 - AEA **Connected Classroom** National Distance Learning Network
 - 15,000 sf Green Roof and Solar Thermal and PV arrays
 - 7 full-time trainers and curriculum developers, 14 multifamily auditors and 10 construction managers also involved in training development and delivery
 - Professional media unit: in-house video production and editing
- 18,000 sf Weatherization Installer Training Lab, Boone Avenue, Bronx, NY
- AEA West Coast Office in the SF Bay Area, Emeryville, CA
- 8 national partners in the AEA Connected Classroom Network

AEA Training Center



From our evaluation processes, we determined that learners needed:

- Better ways to **visualize** complex multifamily mechanical systems
- Exposure to **broader variety of field scenarios** than traditional field or lab-based training sessions afforded
- Greater **interactivity**
- Opportunities for **self-guided** and **self-paced** learning

- Adapting emerging technology for use in AEA training environments:
 - High-definition, live, interactive video broadcasting via AEA's National ***Connected Classroom***
 - 3-D simulations
 - Graphic animations
 - Learner-directed , asynchronous, self-paced web-based training tools

In-House HD Video Production Unit

Developed a professional in-house video production unit

- producers and professional video technicians who also work in and understand WAP
- higher quality production is making an exponential difference in learning comprehension and student engagement
- ability to distribute learning materials to much broader audience – DVD, online, mobile devices, podcasts





High-Definition Distance Learning Infrastructure

- AEA's **Connected Classroom** national distance learning network: 8 locations confirmed and 6 more pending
- State-of-the-art, high-definition broadcasting infrastructure that allows students across the country to attend advanced technical training courses in their own region
- Fully immersed, interactive learning environment
- Specializing in multifamily curricula



Interactive 3-D Tools



Students can perform virtual energy audit tasks including building measurements and diagnostic simulations from the exterior and interior of our 3-D buildings

Interactive 3-D Tools



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Students have access to all areas of the simulated building and perform roof surveys and mechanical ventilation audits.

Interactive 3-D Tools



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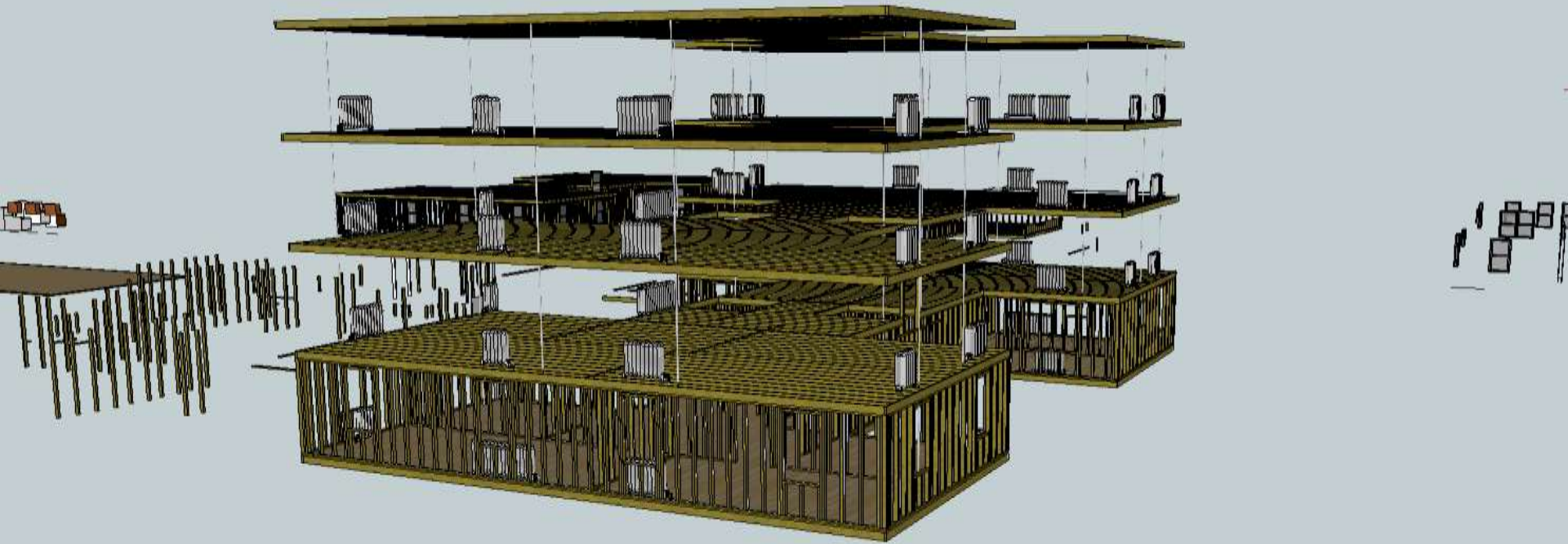


Interior tours enable students to assess hydronic and steam distribution systems, heating and DHW plants, common area lighting, and other in-unit measures

Interactive 3-D Tools

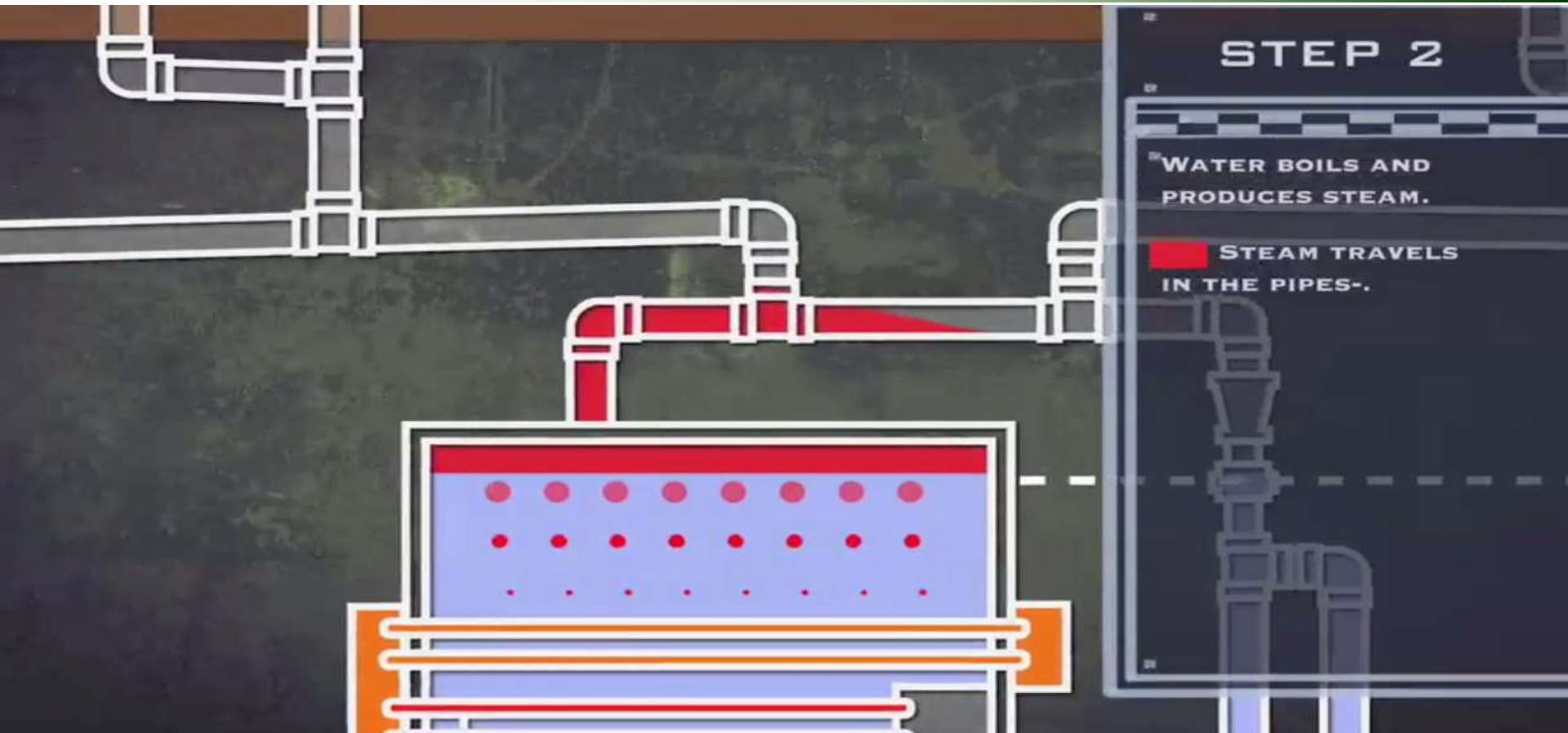


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Our training team is continually developing new simulation buildings from the ground up, with different configurations and scenarios for testing and coursework

Animated Graphics

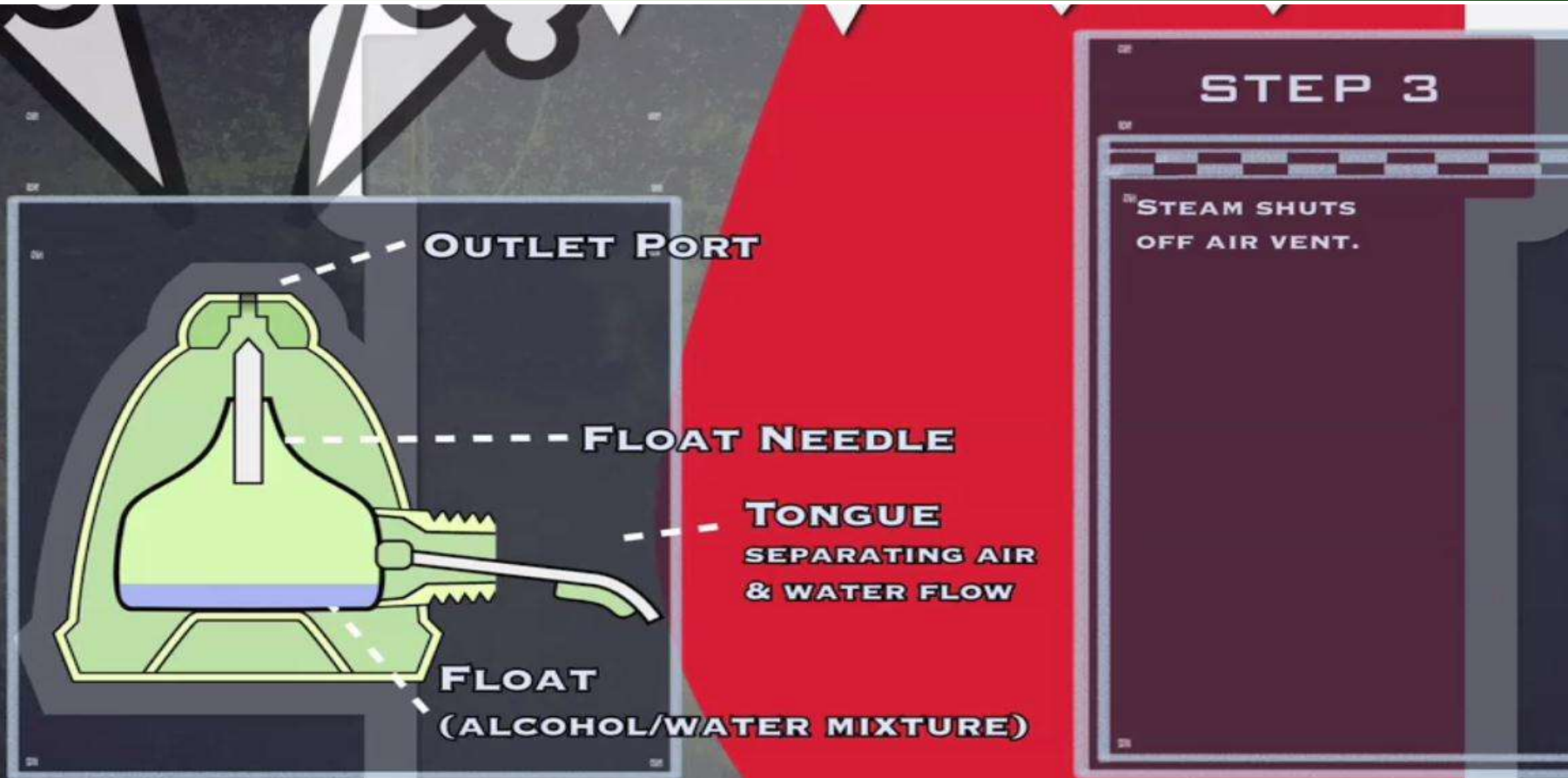


Computer animations help to break down complex processes into steps, such as large mechanical system operating sequences, accelerating the learning process

Animated Graphics



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Graphic animations can zoom inside system components to illustrate how each mechanism works in a way that 2-D diagrams cannot explain clearly

AEA Multifamily Pressure House

- Developed with EMC
- Ability to simulate wide range of pressure conditions in multifamily units, common areas, and interstitial spaces
- Diagnostic sensors throughout
- Opportunities for learner-guided activities



Benefits of Advanced Media Training Tools

Increased **Efficiency** in Training:

- **highly immersive** distance learning environment
- **exposure** to multiple training venues, scenarios, equipment, and instructors from one location
- **increased productivity** - reduced travel times for training
- crystal clear imaging, **larger-than-life** view
- new instructional designs to ensure high levels of **interactivity** and classroom management

Benefits of Advanced Media Training Tools

New media allows instructors to:

- Show multiple field examples at one time – different configurations, conditions
- Better prepare students for range of real-world scenarios, not restricted to a limited number of lab installations
- Show system components and areas of a building that would normally be hard to access during training

- For more information, visit:
 - www.aeany.org
 - Call AEA's EMTC at 718-292-6733 x 8225 or 8021
 - Email:
 - Anna Sullivan asullivan@aeany.org
 - Adam Romano aromano@aeany.org