Coalition Project Highlights: Workforce Training

Margo Sidener, Silicon Valley Clean Cities

Colin Messer, Land of Enchantment Clean Cities

Jannet Malig, Long Beach Clean Cities



JANUARY 20TH, 2021 1:30PM

First Responder Electric Vehicle Training

A Live 1 Hour Webinar Training Course for First Responders.

In-depth training on safely responding to Electric Vehicle Accidents Presented by:

Topics Include:

- EV Identification Techniques
- Immobilization Techniques
- Extrication Challenges
- Recommended Practices for Dealing with Hazards such as Fires and Submersion
- Incidents involving Charging/Refueling Stations
- And More!

For information: Email: robert.projectcleanair@gmail.com Or Call: 661-847-9756







Training Programs

- First Responders—short and long
- Fleet Managers
- Mechanics
- New EV Owners
- School Bus Drivers
- Technology such as Telematics
- Car Dealers

Steps for Success

Collaborate with other CCs

- **Survey for Interest**
- Line up experts
- **ADVERTISE**
- **Involve local stakeholders**

Food and Fun

Evaluate











SF Clean Cities

Santa Clara County Fire Department Training Division

Student Course Evaluation Form

THE GOAL OF THE SANTA CLARA COUNTY FIRE DEPARTMENT TRAINING DIVISION IS TO PROVIDE AN EFFECTIVE PROGRAM THAT MEETS YOUR NEEDS AND EXPECTATIONS, YOUR INPUT IS CRITICAL FOR THE DEVELOPMENT OF FUTURE COURSES AND INSTRUCTOR DEVELOPMENT. THIS IS A STRICTLY VOLUNTARY EVALUATION, BUT WE HOPE YOU WILL COMPLETE IT TO ASSIST IN THE QUALITY IMPROVEMENT OF SCCFD COURSES, THANK YOU FOR YOUR PARTICIPATION, IT IS ALSO APPROPRIATE TO COMPLETE A SEPARATE ORM FOR ASSISTANT INSTRUCTORS. YOU MAY RETURN THE EVALUATION TO YOUR INSTRUCT MAIL IT DIRECTLY TO SCCFD HEADQUARTERS.

Date: January 20, 2021	Instructor(s):	AVI	AVI		
Course: At Fuel Vehicles Emergency Response	Location:	Virtual 2	Virtual Zoom Meeting		
CIRCLE A NUMBER FOR EACH STATEMEN	Very IT Poor		Good	Very Good	Excellent
LOGISTICS					
Course Facilities					
Facilities were appropriate for the course Directions and parking were adequate	1 1	2 2	3 3	4 4	5 N/A 5 N/A
Course Materials					
Printed materials were well organized	1	2	3	4	5 N/A
Printed materials were complete	1	2	3	4	5 N/A
Printed materials were of high quality (readable)	1	2	3	4	5 N/A
Visual materials were related to the course	1	2	3	4	5
Visual materials were appropriate in number	1	2	3	4	5
Visual materials were of good quality	1	2	3	4	5
INSTRUCTION					
Instructor presentation skills	1	2	3	4	5
Instructor communication skills	1	2	3	4	5
Instructor possessed appropriate knowledge of the subject	1	2	3	4	5
Instructors encourage class participation	1	2	3	4	5 N/A
Instructor displayed proper attitude and demeanor	1	2	3	4	5
Answered students questions adequately	1	2	3	4	5 N/A
CIRCLE A NUMBER FOR EACH STATEME	NT Very Poor	Poor	Good	Very Good	Excellent
Course					

Form 1206 Revised 05/2019



Learn all about electric cars from a panel of local, long-time electric car owners and industry experts.

Get all your questions answered:

What do training delivery and technical assistance look like - resources, challenges, solutions, and opportunities?

- Areas of expertise: CNG, LPG, hybrid electric & **BEB/fuel cell/H2 (emerging)**
- Audience: Fleets served mostly HD transit & refuse (public/private) some LD LPG transit
- Contact: Frequent in-shop and phone/email **communication with fleet managers & technicians**
- Topics: Operation, repair, maintenance, funding & procurement, OEM support/warranty







Resources: 40 years gaseous fuels experience, training publications and formats - hard copy, PowerPoint, virtual and on-line (with partners), in-person classes

Light Duty CNG Fuel & Engine Systems Liquefied Petroleum Gas (LPG Liquefied Natural Gas (LNG) Medium- & Heavy-Duty (CNG) Light- & Medium-Duty (CNG) Hydrogen & Fuel Cell Engines Pressure, Volume, Weight

 &Temperature Basics
 Cummins ISIG, L9N, ISXG & 12N

Advanced Lean-burn & Stoichiometric
Gaseous Fuels Engine Control & Ignition

Land of Enchantment Clean Cities Coalition



Challenges: Lack of funding & training prioritization, staff scheduling, technician shortage & engagement, director's retirement

Solutions: On-the-job training (OJT), evolve with technologies, recognize shop cultures, acknowledge technician & management capacities, be adaptable, advocate for technical knowledge

Opportunities: Develop relationships with shop & OEM personnel by bringing value & knowledge with respect & understanding; support technician/management needs, provide positive engagement with sensitivity & feedback

Land of Enchantment Clean Cities Coalition

Workforce Training

Electric School Bus Technician Training

150 tested for skills gaps and electrical 75 trained on safety (3 additional courses planned)

- **Electrical Review**
- High Voltage Dangers
- PPE
- High Voltage Bus Systems
- Bus Safety Systems
- DMM
- Safe Down



U.S. Department of Energy



EV Installation/Service & Maintenance 40 technicians trained to date

- Trenching
- Calculations and sizing wire
- Concrete calculations
- Framing concrete
- Measuring, cutting, securing rebar
- Terminating wires
- Anchoring equipment
- Mounting electrical disconnects, panels, and transformers
- Installing polls and chargers



• Removing Level-1 chargers • Reading construction drawings

• Running conduit (underground, overhead, and surface mount)





Panel Discussion

