

## Safety Subcommittee Meeting Minutes, 6/25/2008, 9:00 a.m.

### Member Attendees

Last Name	First Name	Affiliation	Email	Phone
White	Beth	ARB	<a href="mailto:eiwhite@arb.ca.gov">eiwhite@arb.ca.gov</a>	916-324-1704
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Bray	Andrew	Sierra at Tahoe	<a href="mailto:abray.st@boothcreek.com">abray.st@boothcreek.com</a>	530-543-3129
Brezny	Rasto	MECA	<a href="mailto:rbrezny@meca.org">rbrezny@meca.org</a>	202-296-4797, ext. 104
Brown	Norman "Skip"	Delta Construction	<a href="mailto:skipbrown@deltaconstr.com">skipbrown@deltaconstr.com</a>	916-364-0292
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### Why involved?

Safety subcommittee members discussed why they chose to be involved in the ORIAG Safety subcommittee and what their goals were for the subcommittee. Reasons for joining included the following:

- Help ARB understand what the perceived safety issues are;
- Help ARB understand what the relevant safety standards and requirements are; and
- Discuss specific instances of retrofit installations about which people have safety concerns in order to avoid having future DECS verified that have similar issues.

The goals that members cited for the subcommittee included the following:

- Developing a database of successful and safe VDECS installations, that includes:
  - The type of equipment installed on;
  - Information on ones that were not as successful; and
  - Where/how to install, or not to install.
- Establish a procedure for evaluating claims that a VDECS cannot be safely installed.

### **How do we address potential safety issues with VDECS installation?**

- Can we define the “do’s and don’ts” of VDECS installation or applications? (For instance, rerouting fuel lines through the passenger area in school bus, or drilling on the frame, we could come up with pieces of equipment that pose certain problems.)
- Will CARB regulate where the VDECS can be installed on a piece of equipment?
- New York City Department of Environmental Protection uses cardboard boxes the size of the VDECS as mockups and engineers determine the change in visibility. It was asked how the process will work to give an exemption based on safety in California.
  - ARB responds: Staff is in the process of establishing protocol to determine if the change in visibility, due to installation of a VDECS, makes it unsafe to operate a particular piece of equipment.
- ARB asks the subcommittee what other standards besides OSHA, MSHA, ISO, UL, and ANSI is used in the industry?
  - SAE, and Title 8 for CA/Mining and Tunneling
- Members discussed that the California Highway Patrol will not allow any school bus to be modified until they have seen the plans. It was recommended that ARB needs to have a similar process where we have a committee comprised of experts, which has the final say.
- It was recommended that VDECS device verification should also look at placing a cap on the maximum temperature that a device can reach, as this can cause thermal issues relative to the safety of employees and damage to adjoining devices.

### **Questions and Concerns Raised by the Subcommittee**

- Should there be a buyoff from the OEMs before their devices are changed and the safety could be compromised?
  - Subcommittee members respond: It will be challenging to get OEMs to buy off on other companies’ retrofits and installation. It’s unlikely that they will ever do so, both for warranty reasons as well as sales purposes.
- Could ARB have a checklist of installers that we believe are doing good work?
- Asked in relation to HUSS filters on certain equipment that was identified as unsafe by letters sent out by ARB, what is the process behind that?

- Subcommittee members and ARB respond: The process is that the devices are tested on individual equipment after being generally verified by ARB. Certain pieces of equipment required too many HUSS filters to work properly and were identified by HUSS as not being feasible to install on certain pieces of equipment.
- Who has responsibility to prove a VDECS is unsafe and write the letter requesting that it be determined to not be the highest level VDECS available?
  - Subcommittee members and ARB respond: the responsibility to prove it is unsafe is on the fleet owner.
- How does the process work regarding granting temporary exemptions based on safety – how long is the exemption good for? What is the appeals process when a contractor disagrees with CARB about the safety of an installation?
  - ARB responds: The “exemption” for that piece of equipment is valid until there is a VDECS that meets the requirements. The fleet owner then has until the next compliance date to ensure that it is installed. In addition, you may appeal to the Executive Officer and request a hearing. During the appeal process a stay may be requested and granted and the fleet owner then has six months to bring their fleet into compliance.
- Is there no cost effectiveness limit? Are we required to meet the 20% if the devices that work cost millions of dollars?
  - ARB responds: As the rule is currently written, that is correct. However, there are alternative paths of compliance.
- How is liability addressed in accidents where it can be proven that VDECS impaired visibility?
  - Subcommittee members respond: It seems like it is the contractor’s problem, but they do not get the final say of whether the VDECS is safe. Requested that if ARB is making the call on VDECS safety, it needs to alleviate the owner from liability, in some manner, from accidents that are in part caused by the lack of visibility.
  - Subcommittee member responds: Local Law 77 in New York outlines this, as well as the waiver process. The waiver process is not just line of sight, but any safety, such as whether it fits, thermal, the horsepower is too high, etc. The burden of proof is on the construction company to demonstrate whether it can be practically done.

A request was made to have a Cal/OSHA representative be included in the next meeting and be allowed to engage in the subcommittee discussions.

Additional safety concerns were discussed, such as exhaust height above the operator, which may not meet AQMD Port Rule requirements.

It was mentioned that there is an OEM committee working on a list of VDECS and applicable models and safety issues.

## **Logistics and Next Steps**

The group agreed to meet in person again at the next ORIAG meeting (most likely in September). Between now and then, the group plans to hold phone conferences and exchange e-mails.

Members agreed to provide information about the SAE and additional ANSI standards that they think ARB is not aware of. ARB staff will get these standards, in addition to the applicable portions of Title 8 (Cal/Mining and Tunneling). Upon completion, ARB staff will comprise a list of applicable safety standards and send it out for review.

Members agreed to invite Cal/OSHA representatives to the next meeting.

Members also agreed to provide information from Local Law 77 in New York, relative to liability and the waiver process. ARB staff will follow up.