



# San Pedro Bay Ports Clean Air Action Plan

## Technology Advancement Program Fact Sheet Fuel Additives

### Background

The Clean Air Action Plan's Technology Advancement Program (TAP) mission is to "accelerate the verification or commercial availability of new, clean technologies, through evaluation and demonstration, to move towards an emissions free Port." Further, the TAP is focused on the evaluation and demonstration of new and emerging technologies applicable to port industry that can ultimately be utilized as emission reduction strategies from port operation.

### Fuel Additives

Due to an increasing number of inquiries from diesel fuel additive distributors, the TAP developed this fact sheet to answer "frequently asked questions" and provide greater insight into the TAP process as it pertains to fuel additive project requirements. As background, on-road fuel additives must be registered with the U.S. Environmental Protection Agency (EPA) to be available for sale in the United States. EPA registration allows fuel additives to be marketed and sold in accordance with the EPA registration terms. As such, the sale of registered additives to port equipment operators is legal, and there is no restriction on the use of registered additives at the ports of Los Angeles and Long Beach. Companies that market or distribute fuel additive products are free to target their sales efforts to the port sector with the understanding that port authorities do not endorse specific products or advocate on behalf of manufacturers or distributors.

### What is a Fuel Additive?

"Fuel Additive" means any substance designed to be added to fuel or fuel systems or other engine-related systems such that it is present in-cylinder during combustion and has any of the following effects: decreased emissions, improved fuel economy, increased performance of the entire vehicle or one of its component parts, or any combination thereof; or assists diesel emission control strategies in decreasing emissions, or improving fuel economy or increasing performance of a vehicle or component part, or any combination thereof.

### How Can Air Quality Improvements from Additives "Count"?

The EPA registration process requires the manufacturer to provide certain information about the additive. EPA registration does not "verify" or "certify" the emission reductions that are claimed to be achieved by the additive manufacturer. In California, there is a much more rigorous process managed by the California Air Resources Board (CARB) that must be pursued to achieve verification of emission reductions. This verification is required in order for the ports and port equipment operators to receive "credit" for the emission reductions associated with an additive's use.

### **What is "Verification" and How Do I Get Started?**

CARB is primarily responsible for controlling emissions from mobile sources throughout the State of California. As part of this responsibility, CARB established verification procedures for aftermarket emissions control devices and fuel additives. These procedures include emissions testing and in-use durability testing as well as so-called "multimedia" evaluation for fuel additives. Multimedia evaluation, which can include special testing, is required by state law to ensure that all environmental effects of fuel additives are considered. Receipt of CARB verification is necessary in order for a fuel additive to achieve recognition as an emission reduction system and to quantify the amount of reductions that result from the additive's use.

### **Is Verification an Eligible Project for TAP Funding Consideration?**

Yes. If a fuel additive manufacturer is interested in obtaining CARB verification for an additive, an unsolicited proposal seeking funding assistance for this effort would be considered an eligible project for possible funding under the TAP. When considering a TAP proposal submission, please keep in mind the following:

- The proposal must follow the published TAP Guidelines for an unsolicited proposal (see below for a link to these guidelines on the CAAP website);
- The project team must include a commitment from an equipment operator at the ports to participate in the project and test the additive in their equipment. Please note that the ports do not operate terminal equipment. As such, port staff is not able to match fuel additive projects with equipment demonstration partners;
- The proposal must be submitted by the fuel additive manufacturer, or the manufacturer must be a key project partner;
- CARB verification must be a project element. Evidence must be included that the CARB verification process has been initiated (see below for the CARB contact). Note that under California Law this process includes a rigorous multimedia testing protocol; as such, the TAP will only consider fuel additive proposals that have initiated multimedia evaluation with CARB. Evidence from CARB that multimedia testing has already been initiated must be submitted with the TAP proposal.
- An estimate of the emissions reduction potential of the additive should be provided, along with any available emissions testing data. Remember that the TAP is most interested in reductions of oxides of nitrogen (NO<sub>x</sub>) and diesel particulate matter (DPM).

### **Additional Resources**

You may download the TAP guidelines from the following link. Attachment B provides the format for unsolicited TAP proposals.

<http://www.cleanairactionplan.org/civica/filebank/blobload.asp?BlobID=2211>

The CARB contacts for additive verification is are Mr. Dean Bloudoff at (916) 322-1521 or Ms. Aubrey Sideco at (916) 327-5619. CARB verification test procedures and additional related information can be found at:

<http://www.arb.ca.gov/diesel/verdev/verdev.htm>

The CARB contacts for multimedia evaluation are Mr. Bob Okamoto at (916) 327-2953 or Ms. Aubrey Sideco at (916) 327-5619. The specific CARB test procedures are found here:

<http://www.arb.ca.gov/diesel/verdev/reg/oalapprovedprocedurefeb07.pdf>