



Testimony of Bob Lanham
on behalf of
The Associated General Contractors of America

Presented to the
Subcommittee on Clean Air and Nuclear Safety
of the
Environment and Public Works Committee

United States Senate

on the topic of

Reducing Diesel Engine Air Emissions

May 12, 2011

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Mr. Chairman and Members of the Committee thank you for the opportunity to present some of the construction industry's perspective on plans for "Reducing Diesel Engine Air Emissions." I am Bob Lanham, Vice President of Williams Brothers Construction Company located in Houston, Texas, and I am here today representing the Associated General Contractors of America. I have been both the chairman of AGC's highway division and the chairman of the association's environmental committee. I am also proud to report that the U.S. Environmental Protection Agency (EPA) awarded me the National Clean Diesel Campaign Pioneer Award for "exemplary efforts and early support of the National Clean Diesel Campaign – noting that my work has inspired other contractors to become involved and to unite behind the common goal of reducing diesel emissions." EPA has also singled out my company, Williams Brothers Construction Company, as a national model on how to proactively embrace innovative measures for reducing diesel emissions. In fact, the agency currently showcases my company's voluntary diesel retrofit efforts as a "case study" on its website.

AGC is the leading construction association in the country representing contractors that build all forms of infrastructure, including: highways, bridges, transit systems, railways, airport terminals and runways, water and wastewater treatment facilities, underground utilities, public buildings, multi-family housing, office buildings, military facilities, water resource projects, energy production and conservation facilities, and the many other structures that are the backbone of the U.S. economy and provide and ensure U.S. citizens' quality of life.

AGC has worked side-by-side with EPA in advancing every major federal "clean diesel" initiative intended to improve air quality and simultaneously protect the construction industry from serious disruption. These initiatives have sought (1) to identify appropriate incentives for the retrofit of diesel equipment, (2) to secure federal funding for diesel retrofit, (3) to inform AGC Chapters and fleet owners that they may qualify for government grants to retrofit existing fleets of construction equipment, and (4) to enact a federal tax incentive for diesel retrofit.

IDENTIFY APPROPRIATE INCENTIVES FOR THE RETROFIT OF DIESEL EQUIPMENT

AGC serves as the co-chair of a federal advisory "Non-road Construction Workgroup" that is charged with providing guidance and recommendations to EPA on the best strategies for

reducing emissions from construction equipment that is currently in use. In addition, under the last Administration, AGC served as the construction industry's representative to EPA's exclusive "Sector Strategies Program" and collaborated with EPA to develop reports and recommendations on positive incentives for diesel retrofit in the construction industry (see e.g., *Cleaner Diesels: Low Cost Ways to Reduce Diesel Emissions from Construction Equipment* (March 2007) and *Emission Reduction Incentives for Off-Road Diesel Equipment Used in the Port and Construction Sectors* (May 2005) – <http://www.epa.gov/sectors/construction/#emissions>).

AGC has played an active role in EPA's National Clean Diesel Campaign since its inception in 2000. At EPA's request, AGC helped to plan and moderate the "[Non-road Track](#)" at Clean Diesel 10 -- a significant event held late last year to celebrate the 10-year anniversary of EPA's National Clean Diesel Campaign -- and also served on the VIP Steering Committee for the conference. During the event, Gina McCarthy, assistant administrator U.S. EPA Office of Air and Radiation, thanked AGC for its "partnership" and "significant contribution to the clean diesel program." AGC of America remains an active partner in many regional Clean Diesel Collaboratives and we provide the association's 95 Chapters and nearly 33,000 members with the information they need to make the voluntary program work at the state and local levels.

SECURE FEDERAL FUNDING FOR DIESEL RETROFIT

AGC has long advocated for increased government investment in, and support for, the retrofit of off-road diesel construction equipment. AGC was an original supporter of the Diesel Emissions Reduction Act (DERA) dating back to 2005 and played a key role in the development and passage of that Act, which became part of the Energy Policy Act of 2005. As the bill was originally written, it did not ensure that qualified private fleets could apply for the public funds set aside for retrofitting equipment. Thanks to AGC's efforts, over the past five years, our Chapters and members have joined forces with other industry partners to voluntarily apply for federal grants under the EPA National Clean Diesel Funding Assistance Program. Notwithstanding the extremely fierce competition, several AGC Chapters have won significant grant awards and leveraged millions of dollars (in matching and in-kind contributions) to help their members afford the high cost of reducing emissions from construction equipment that is currently out in the field.

Today, AGC continues to lobby Congress for full funding of DERA. The association is proud of the role it played in securing reauthorization of federal DERA grants through 2016 and to amend certain provisions of the bill to help Chapters and members compete for federal aid under the EPA National Funding Assistance Program. AGC was pleased that the new legislation made two significant changes that will make the grants even more accessible to private industry. First the bill eliminates a requirement that 50 percent of the funds be made eligible only for public sector vehicles. Much of that fleet is newer and will amount to little in the way of clean up value for the dollar. The second change allows individual companies under contract with public agencies to apply directly for the grants rather than through a third party non-profit organization or government agency. This makes the process for applying much simpler for the recipients. These changes will make the program easier to navigate and more effective.

AGC also was very active in pushing diesel retrofit initiatives in SAFETEA-LU. AGC worked closely with Senators Inhofe and Clinton to craft Section 1808 of SAFETEA-LU, which allows states (and other recipients of federal-aid highway funding) to use CMAQ funds to pay for the retrofit of off-road diesel equipment needed to construct projects funded under Title 23 of the United States Code. Specifically, SAFETEA-LU added a new requirement that states and MPOs must give priority – in distributing CMAQ funds – to diesel retrofits, particularly where necessary to facilitate contract compliance, plus other cost effective congestion mitigation activities providing air quality benefits. The bill made money available for outreach and education on diesel retrofit technologies and helped to advance the introduction of new devices into the marketplace.

These changes in the law were supported by a Transportation Research Board findings in Special Report 264, the *CMAQ Improvement Program, Assessing 10 Years of Experience*. The report concluded that “...strategies directly targeting emission reduction have generally been more cost-effective than attempts under CMAQ to change travel behavior.” It recommended re-authorization of the CMAQ Program with modifications to improve its cost-effectiveness and to enhance its performance in improving air quality. In addition, a report for the Emission Control Technology Association that builds on this TRB report and other data reaches similar conclusions about the cost-effectiveness of diesel retrofits

ENACT A FEDERAL TAX INCENTIVE FOR DIESEL RETROFIT

In addition, AGC seeks to modify the federal tax code to provide other financial incentives for contractors to retrofit their existing diesel equipment.

We were very involved in the recent changes to the California Air Resources Board (CARB) diesel reduction regulations. We helped CARB better understand the construction industry and the data used to create its emission models. By improving that data we also helped the state adopt a more effective emission reduction strategy based on the actual inventory of construction equipment in the state and the use of that equipment on a day-to-day basis. Together we created a more accurate model of the emissions in the state. Both the regulated and the regulators learned a lot about each other, and the final regulations provide a much more realistic and effective program than the program originally adopted by CARB.

AGC works hard to educate policy makers at the national and state level on the business of construction and on the potential pitfalls that come with manipulating the standard bidding process. AGC continues to explain that construction companies are worth the equipment they own and that any move that would render a company’s fleet obsolete would wipe their balance sheet to zero overnight. Recognizing industry concerns, EPA and many states outside of California have aggressively pursued voluntary partnerships and programs aimed at cleaning up the legacy fleet.

Highway and transit contractors own large fleets of off-road construction equipment that is essential to their businesses. Off-road equipment is extremely costly, and small pieces of equipment, such as a backhoe, easily costs tens of thousands of dollars. Larger pieces of equipment, such as bull dozers, scrapers and excavators can cost \$1 million dollars or more.

Transportation construction companies tend to self-perform as much of the work as they are allowed and therefore are highly reliant on their equipment. Even a very small highway construction company can have a majority of their net worth tied up in equipment.

Contractors are very careful with their equipment. It is often a significant portion of what contractors pledge to their bonding companies when they bid on public work. Emission reduction strategies for construction equipment are not cookie cutter add-ons. The appropriate emission reduction strategy for a piece of equipment may become inappropriate in certain circumstances. During the CARB debate, we heard about cookie cutter proposals that worked on one piece of equipment but created a hazard for the operator on another piece. We strongly believe that the goal of emission reduction strategy should be to reduce emissions without compromising safety or performance of the equipment. A flexible retrofit model will help improve the effectiveness of any retrofit program and help preserve the value of the equipment owned by the contractors.

CLEAN CONSTRUCTION PRINCIPLES

AGC has worked over the past several years with the Clean Air Task Force (CATF), the leading environmental group in the field of diesel pollution, to develop the “Clean Construction Principles.” As a result of much communication and collaboration, we are in agreement that states should respect the competitive bid system and the public should bear the cost of retrofitting equipment already in use. Our hope in working cooperatively with CATF was to establish a workable solution for reducing diesel emissions without adversely impacting the construction industry or undermining our national efforts to address transportation infrastructure needs. We believe that the principles largely achieve these objectives, and AGC is pleased that these principles became the basis for Chairman Carper’s Clean Construction Act of 2011.

The legislation would allow states to require that on and off road diesel equipment used on highway or transit construction projects in PM2.5 non-attainment areas use diesel emission control technology, but further requires the state to pay for the cost of installing the technology. The total payment is limited to 1 percent of the project cost. An important factor for the construction industry is that the requirement does not undermine the competitive bidding process. Instead, it allows the successful low bidder to receive payment for upgrading the emissions technology through a change order procedure. CMAQ funding, which already makes diesel retrofit a funding priority, can be used by states to meet this requirement.

While AGC is supportive of the legislation, we believe some additional adjustments would make the legislation more workable. First, we believe that states should receive State Implementation Plan credit for the emissions reductions that result from taking these steps towards meeting their Clean Air Act mandates. Second, we believe there should be a de minimus exemption from implementing these requirements for projects that are of short duration or of minimum dollar value. Third, we believe that the additional step of submitting a list of subcontractor equipment is burdensome on state DOTs and contractors and provides minimal increased emissions reductions.

LOOKING TO THE FUTURE

Great strides have been made in diesel engine technology over the past ten years. Equipment manufacturers have been meeting or exceeding Clean Air Act mandates. Diesel powered engines for off-road construction equipment are being produced right now for Tier 4 compliance. These machines will reduce particulate matter (PM) emissions by ninety percent. Over the next year, additional Tier 4 equipment will become available that will result in additional PM reductions from larger pieces of off-road equipment. Eventually these technology improvements will become the norm in the construction industry as contractors retire and replace their existing fleets of equipment the new technology is more widely used.

In the meantime, AGC understands there is a public good derived from speeding up the existing emissions reduction effort. We also know that there are constantly evolving advancements in after market technologies that can reduce particulate matter emissions from diesel engines. While installing emissions control technology on the existing inventory of equipment may in some cases increase the maintenance costs of construction equipment, AGC and its members have embraced proposals that balance local, state and national air quality goals with safety, reliability and value – the goals of every construction business. At a time when the construction industry is experiencing depression like conditions, with construction put in place at an 11-year low and unemployment in the industry over 17 percent, more than twice the rate of unemployment for the entire economy, now is a very difficult time to sell the idea of a new diesel retrofit mandate to our members. Nevertheless, AGC has embraced the clean construction proposal sponsored by Senator Carper because it strikes a careful balance between helping to pay for the initial installation (contractors will pay for the long term maintenance) and allowing states to apply a value based judgment that will see the dirtiest equipment cleaned up first. We believe that the application of this program on a case-by-case basis will allow construction project owners to both clean up equipment working on public jobs and to do it in a way that will allow the best possible deal for the taxpayers.

We believe that the flexibility of this proposal will be the key to its success. This diesel emissions reduction initiative applies to a huge variety of construction equipment. Unlike trucks or other on-road vehicles, construction equipment comes in myriad sizes, shapes and configurations. The equipment may have tracks, rubber wheels or other means of motive power, depending on the nature of the terrain that it has to traverse. Much of this equipment has “arms” that it must extend and move in unique ways to stabilize equipment and to extend its range. The operators of this equipment are skilled professionals well aware of the damage that it can cause and the injuries that it can inflict. There is no “one size fits all” technology available that will result in desired emissions reduction because compatibility for attachments and components for engine compartments and transmissions varies from one piece of equipment to another.

In producing its rule, CARB identified 19 different “equipment types” in the “construction and mining” category. We believe the product differentiation is much broader than that. To better understand the different types of equipment and their wide variety, we encourage you to visit the web sites of leading auctioneers of construction equipment, such as Ritchie Brothers, online at www.rbauction.com. On January 17, 2010, this website featured 99 different classes of construction equipment, including 38 classes that appeared to be subject to the Rule. The

website also identified an average of 10 different manufacturers of the equipment in each of these 38 classes.

As new technologies are developed, it should be pointed out that what is possible under experimental conditions is not always possible under real world working conditions. This is especially true when you consider the wide variety of equipment used in construction and the often extreme conditions in which they are used. It is not enough to show that verified diesel emission reduction technology reduces emissions under laboratory conditions, or that new or rebuilt engines have lower emissions than engines already in use. Since diesel emissions reduction requirements apply to equipment already in the field, technology must be proven feasible in the field. We support the “Clean Construction Act of 2011” as introduced by Chairman Carper because it marries specific pieces of equipment with specific modifications that are feasible, safe and effective and that are verified on EPA or CARB lists.

It also gives state transportation officials the authority and funding to promote the use of the most effective clean construction equipment strategies on federally-funded transportation projects in PM non-attainment areas.

AGC believes that the “Clean Construction Act of 2011” sets the roadmap for improving air quality without creating a potential barrier to competition for federal and federal aid construction projects. The key to providing a value to the taxpayer is that it is not a blanket mandate, but a selective mandate that allows flexibility to identify and clean up the dirtiest equipment that will be operating on the project for at least 80 hours over the life of the project. The government administers the program through a fully funded change order process. By preserving the competitive bid process, the principles ensure that smaller firms that are the least able to invest in retrofits are not shut out of bidding for public projects, thereby making sure that some of the dirtiest equipment in service is eligible for clean up.

As the workhorse of our economy, diesel engines, especially those used in off-road construction equipment, will continue to play a major role in building our communities. AGC is pleased to support the “Clean Construction Act of 2011” and looks forward to working with this committee to move the bill through the legislative process.