

**Retrofit Workgroup Meeting  
Construction  
October 13, 2004**

**Purpose**

Leah Wood Pilconis (Associated General Contractors of America [AGC], co-chair) called the meeting to order at approximately 10:30 a.m. Following introductions (see List of Attendees at the end of these minutes), Ms. Pilconis noted that the purpose of the meeting was to discuss obstacles to retrofitting diesel engines in the construction sector, meaningful incentives for retrofit, and next steps for the group in 2004/2005.

Rich Kassel (Natural Resources Defense Council [NRDC]) suggested that perhaps the group should discuss goals first, noting that the School Bus Subgroup has formulated clear, numeric retrofit goals. Jim Blubaugh (EPA, manager of the Diesel Retrofit program) indicated that EPA wants this subgroup to develop recommendations on how to move forward in this industry sector through characterizing the population/distribution of diesel engines, identifying retrofit incentives and obstacles, and developing a workplan for generating advice for EPA.

**Incentives and Obstacles**

The participants engaged in a wide-ranging discussion of diesel retrofit incentives and obstacles in the construction sector. The discussion points are summarized in the following paragraphs.

Patrick Mohrman (Caterpillar) pointed out that retrofit in the construction sector is currently better funded than the school bus sector, based on grants awarded under state programs in Texas and California. The Texas program is the Texas Emissions Reduction Plan (TERP), while California has the Carl Moyer program.

Ms. Pilconis handed out an article on TERP that is scheduled to run in the November issue of "Constructor" (included as an attachment). She noted that more than 40 AGC members are set to voluntarily reduce pollution from their construction equipment using grants under TERP. It is estimated that the construction industry will be credited with reducing emissions of ozone-producing nitrogen oxides (NOx) in Texas by almost 6,000 tons over 9 years. She indicated that the Carl Moyer program is not just for the construction sector, but this sector has taken advantage of the program. For the Carl Moyer program, the AGC has been working with Caterpillar to determine the best retrofit techniques for various models of Caterpillar engines. Howard Gerwin (John Deere) indicated that he would like more information on getting involved in the Carl Moyer program; Ms. Pilconis offered to set up a conference call with a knowledgeable AGC representative to discuss the program, if needed.

Ms. Pilconis and others summarized other incentives:

- State tax credits. These have been tried in Oregon and Georgia, but not many companies have taken advantage of them. They have suffered from a lack of publicity and the fact

that the incentive is not very large. These programs reduce a company's taxes by a portion of what they have spent on retrofits. Because state taxes are not generally very high, this does not amount to a great deal of money.

- Contract specifications. This involves specifying in the contract that goes out for bid that the work must be done using retrofitted equipment (or some percentage must be retrofitted). Local Law 77 in New York City requires this for all contracts in the city. New Jersey has recently proposed similar legislation that would require all public projects to include such contract specifications. The AGC believes that this approach unfairly penalizes smaller companies, which do not have as much money to spend on retrofits. A large company can submit a lower bid, using its greater resources to retrofit its equipment without reflecting the cost in its bid. A small company would not have the money on hand to retrofit its equipment, and so would be unable to match the larger company's bid. After retrofitting its equipment, the large company would continue to be at an advantage in subsequent bids.
- Bid preferences. This approach awards a preference to companies that commit to using retrofitted equipment to perform a contract. The AGC believes that this approach similarly penalizes smaller companies.
- Bid allowances. This approach provides an allowance for retrofit expenses, if needed, that does not count against the company in the bid evaluation process (i.e., contract would be awarded to the lowest bidder). This levels the field for smaller companies, allowing them to recoup the expense of retrofits so that they can compete with larger companies.

Mr. Blubaugh stated that EPA is looking at models for funding construction sector retrofits. He pointed out that school bus retrofits have limited federal funding, with additional funding coming at the state level. He hopes that similar funding will come for the construction sector. He noted that EPA would support a federal TERP-style program.

Mr. Gerwin stated that there are two aspects to an incentive program that should be considered separately: the funding mechanism and the allocation method. He noted that TERP and Carl Moyer are different in both regards. For funding, TERP has a more stable mechanism based in part on fees collected on the sale and use of construction equipment. The Carl Moyer program depends on the annual California state budget, which could be reduced at any time. He pointed out that funding for school bus retrofits is a relatively easy sell since it involves the health of children and under-funded school systems; it may be harder to sell subsidizing retrofits for the construction sector, which will use the equipment to make money.

Urszula Miezio (Johnson Matthey) suggested that statistics on emissions from the construction sector and air quality impacts could help sell the need for economic incentives for the industry. Ms. Pilconis indicated that there is already a lot of information available on the equipment inventory in the construction industry, and summarized the situation:

- Construction equipment lasts a long time, so much of it is old.

- Companies do not retire the equipment early for economic reasons.
- Construction equipment probably contributes to nonattainment in some areas, and it would benefit air quality to retrofit construction equipment.
- The question is how to achieve retrofit without economically damaging the construction industry.

Mr. Gerwin added that even when equipment is “retired,” the company often uses it as backup equipment. He noted that there is a lot of Tier 0 equipment with this status. This equipment is used occasionally, with high emissions. Ms. Pilconis pointed out that large companies often “retire” their old equipment by selling it to smaller companies. This compounds the problem because small business with little money for retrofits generally own the old equipment that most needs retrofitting. She went on to state that the group needs to look at state and federal funding mechanisms, as well as allocation models. She believes that the TERP program is a good model for both. There is no federal funding model at this time, only isolated grants from EPA’s Office of Transportation and Air Quality (OTAQ).

The AGC has developed a legislative proposal for a federal tax incentive for the construction industry. Ken Simonson (AGC Chief Economist) distributed a handout on the proposal and summarized its main points:

- The legislation would provide an immediate federal tax write-off in the first year for the entire cost of qualifying retrofit equipment.
- To qualify, the equipment must be on EPA’s Verified Technology List.
- The legislation is modeled on an existing section that allows an immediate write-off for alternative fuels. A similar new section in the recently-passed tax bill will provide an immediate tax write-off for desulfurization equipment purchased by small refineries.

Mr. Mohrman asked whether the equipment would qualify if it is on the California Air Resources Board (CARB) Verified Technology List. Mr. Blubaugh noted that EPA has agreed to recognize technologies on the CARB list. Ms. Pilconis indicated that the language in the proposal should be revised to include the CARB list.

Mr. Gerwin asked what effect retrofitting an engine has on the existing engine certification. He also pointed out that retrofitting affects emissions, and could make emissions worse if the owner uses the equipment improperly (such as by using a high-sulfur fuel).

Mr. Mohrman responded that removing an existing after-treatment device from a certified engine to replace it with a more effective device is technically tampering. (There is no such problem if one simply adds a control device without removing one.) He noted, however, that EPA’s enforcement policy known as Memo 1A provides that EPA will choose not to enforce for “tampering” that reduces emissions. However, the “tampering” retrofit breaks the engine certification.

Mr. Blubaugh indicated that the manufacturer would not be held responsible if the owner uses the wrong fuel in his equipment. The owner would be at fault because he did not use the

verified technology as listed. The Verified Technology List specifies both the equipment and the type of fuel.

Mr. Gerwin noted that the proposed tax legislation would pay for the equipment retrofit, but asked how one would convince the equipment owners to take advantage of it. Ms. Pilconis and Mr. Peter Truitt (EPA, construction industry point-of-contact) responded that applications for TERP have been in excess of available funds. Ms. Pilconis went on to state that AGC has done a great deal of outreach and education for the construction industry, and the industry is aware that poor air quality has the potential to be a big problem for construction in nonattainment areas. She believes that the construction sector will take advantage of this incentive in nonattainment areas

Mr. Gerwin noted that some customers now request a “retrofit” when they initially purchase a piece of equipment and asked whether such “factory-fit” equipment would be included under the proposed legislation. Mr. Mohrman suggested that new equipment is cleaner and that legacy equipment is the biggest issue. Mr. Gerwin responded that they now have customers who are under New York City or California constraints to go beyond Tier 2 certifications.

Ms. Pilconis and Mr. Simonson indicated that they will set up an email group to get comment on the draft legislation from members of the group. Mr. David Schwietert (AGC Environmental Lobbyist) stated that AGC wants to reach out to the construction sector to achieve clean-up. He believes that the draft legislation is advantageous in that it is fair to all and does not restrict commerce. They are rolling out the idea in this group to obtain feedback.

Mr. Gerwin asked what the cost of the proposal would be. Mr. Schwietert responded that it has not yet been calculated.

Mr. Kassel suggested that the group needs to recommend measures that will lead to the true retirement of old equipment, not just relegate it to back-up status. Even though such old equipment is used less, its emissions are so high that they can be significant even with limited use. He indicated that the group’s recommendations should address speeding up real replacement of equipment.

Mr. Mohrman responded that speeding up retirement could cripple the construction industry. He stated that any measure that devalues old equipment presents a very large problem to the industry. He explained that a company’s biggest asset is its equipment. The value of that equipment is critical to the amount for which a company can be bonded, which is critical to the size of the contracts it can bid. For example, if retrofit incentive programs reduce the value of a company’s equipment by 30 percent, it reduces its bonding amount by 30 percent and could result in the company not being able to compete for contracts large enough to support its capital investment. Mr. Mohrman emphasized that this is very important and stated that this concern is why the proposed legislation is so advantageous. Mr. Gerwin added that the value of a company’s equipment also affects its ability to lease additional equipment.

Ms. Pilconis stated that the incentive program needs to be something that construction companies will do and something that engine manufactures and after-treatment device manufacturers can make happen. Mr. Gerwin pointed out that there are a very wide variety of engine models that must be addressed in retrofitting. In most cases, the equipment owner calls his dealer to determine how to retrofit the engine, who in turn calls the manufacturer. He indicated that this entails hidden costs for “legacy engineering” for the manufacturer to determine how to best retrofit each engine model/duty cycle combination. He gave the example of a piece of equipment with an old, Tier 0 engine. The best control alternative may be to replace the engine with a Tier 2 engine, but such a replacement involves a great deal of engineering to make it work properly. He stated that at Deere engineering resources are a problem; the company must balance the needs for retrofit engineering with the development of the Tier 3 and 4 engines. Mr. Truitt stated that ultimately the funding for retrofitting will come from the equipment owner who needs the retrofitted equipment. When there is a new, large retrofit market, there will be money to be made in satisfying the demand.

Ms. Pilconis said that there are three types of obstacles to construction sector diesel retrofits: technology, installation, and cost. Regarding technology, at this time there are no retrofit technologies verified by EPA for use on nonroad diesel engines used in construction equipment. The many engine models, varying duty cycles, and space considerations for retrofit after-treatment devices all present obstacles to verifying technologies, although there have been some successful, cooperative demonstration projects. She asked who will fund the verification process—engine manufacturers and after-treatment device manufacturers? A participant noted that EPA is working to get technologies onto the Verified Technologies List. Mr. Gerwin added that this is a difficult task since one technology may work well on a particular engine for a particular type of duty cycle, but not work well on the same engine with a different duty cycle. Mr. Blubaugh pointed out that the Verified Technologies List specifies the type of fuel for each technology, but not the duty cycle. Mr. Kassel indicated that once the technology is available, there still must be some impetus for equipment owners to retrofit their equipment. He noted two alternatives—require retrofit, or provide economic incentives and education.

Regarding installation, Ms. Pilconis indicated that this is an obstacle for the equipment owner. At this point, they are not sure who they can trust, where they should buy retrofit equipment, or where to have it installed. The AGC has been trying to educate its members on this. Mr. Gerwin stated that owners should go to their dealers for these services. Ms. Pilconis pointed out that no dealers were in attendance at this subgroup meeting. She said that for the fleet owner, anything that lowers the value of his equipment hurts his business greatly. The equipment owners have a real need for the technology piece and the installation piece to be pulled together.

Mr. Mohrman pointed out that the subgroup had identified cost as the biggest obstacle at the June meeting. He noted that the proposed tax legislation is one approach to the cost obstacle. He went on to say that the legislation will not do it all—after leveling the playing field with the tax write-off, then a bid specification can be used to provide the impetus for retrofits without disadvantaging anyone.

Mr. Mohrman also noted that it will be problematic for contractors if each jurisdiction has its own system of bid specifications/preferences/allowances. Mr. Kassel responded that it should not be a problem if all jurisdictions give credit only for technologies on the EPA/CARB Verified Technologies List.

### **EPA Sector Strategies ICF Contract**

Mr. Truitt reported on an upcoming EPA-funded effort. The EPA will be kicking off a 3-month project with ICF to look at incentives for retrofitting equipment in the construction and ports sectors. ICF will be evaluating all sorts of incentives and programs, providing a description and the pros and cons of each. They will look at SIP credits, tax credits, trading, grants, energy-reduction incentives (many of which also reduce emissions), CARB programs, TERP, natural gas-fueled vehicles, and many others. The draft report should be ready in January 2005. Mr. Truitt asked for any feedback or suggestions from the group.

Ms. Pilconis suggested that ICF separate out the funding mechanism and the allocation mechanism for each type of incentive that is evaluated. She also asked how ICF intends to obtain feedback from industry about the effectiveness of the incentives. Mr. Truitt replied that ICF will be interviewing individuals in the construction and ports sectors about the incentives. Ms. Pilconis noted that it is easy to get input from air quality managers and stressed the importance of industry input.

Another participant suggested that ICF also obtain input from the engine manufacturers. Mr. Mohrman and Mr. Gerwin noted that their companies have not generated any written material on their positions on various types of incentives. The Engine Manufacturers Association has discussed the issue, but not issued any positions.

Mr. Truitt indicated that he intends to distribute the draft report to the members of this subgroup for comments. The final report should be completed at the end of January or beginning of February 2005.

### **Next Steps**

1. Conduct a follow-up conference call on the tax incentive proposal to get everyone's input.
2. Conduct a follow-up conference call to discuss the draft ICF report when received.
3. Conduct a diesel retrofit workshop for the construction sector, with a prior conference call to finalize plans.

Regarding the workshop, Ms. Pilconis suggested two possible venues: (1) AGC's Highway Leadership meeting in February or (2) AGC's convention in the spring. The spring convention is held in Las Vegas in conjunction with ConExpo, a very large trade show for the construction industry. She preferred the Las Vegas event, indicating that it would allow a workshop with equipment manufacturers, dealers, contractors, and manufacturers of after-treatment devices. She suggested that the workshop be used to share with the participants what activities are going on in the construction sector and to report on the work done by ICF.

Tim Johnson of Corning agreed that the Las Vegas conference fits with the subgroup's timing. He suggested that the workshop participants work through and resolve the issues related to diesel retrofit in the construction sector. Ms. Pilconis indicated that AGC has held meetings for this purpose in the past, but that they were unable to resolve anything because the retrofit technology is not yet in place. She does not want to repeat that type of experience, fearing that the players in the construction sector will lose the interest in participating. Mr. Johnson agreed that the spring workshop would be better used to report to the players about developments.

Mr. Gerwin stated that the process of getting technologies onto the Verified Technologies List needs to be jumpstarted. He stated that funding is needed to make progress, working first on the high-volume engines and after-treatment devices. Ms. Pilconis indicated that they have discussed this issue a great deal within AGC; their solution is to enact the proposed tax incentive to build demand for retrofits, which will spur the technology. Mr. Gerwin responded that there is also a need to push the technologies forward. Steven Flint (New York State DEC) pointed out that this will be helped by the New York State Energy and Research Development Authority's upcoming demonstration program for off-road diesel equipment. A participant noted that funding assistance sources such as this need to be pulled together and publicized in the industry.

## Attendees

Name	Organization	E-Mail
Leah Wood Pilconis, co-chair	AGC of America	<a href="mailto:woodL@agc.org">woodL@agc.org</a>
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## Tax Incentive for Retrofitting Diesel-Powered Construction Equipment

**Summary:** Use of low-sulfur diesel fuel and advanced engines and emissions control systems on construction equipment can significantly enhance air quality. However, these benefits will take decades to achieve without an incentive to retrofit existing equipment, which may remain in service for 25-30 years. Even when some construction equipment owners are willing to retrofit, there are currently few options available, because the wide variety of equipment types, many of which exist in relatively small quantities, make it expensive to design appropriate emissions controls. Allowing expensing (immediate writeoff) of the cost of modifications would provide an incentive to emissions-control manufacturers and equipment owners to make voluntary air-quality improvements.

**Background:** The U.S. Environmental Protection Agency (EPA) has launched the Voluntary Diesel Retrofit Program, a non-regulatory, incentive-based, voluntary program designed to reduce emissions from existing diesel vehicles and equipment by encouraging equipment owners to install pollution-reducing technology. Good candidates for this program include school bus fleets, transit bus fleets, sanitation trucks, and freight haulers. Even better candidates are the fleets of off-road construction equipment needed to maintain and expand the nation's economic infrastructure.

Construction equipment engines make good candidates for retrofitting incentives for several reasons.

- They are very long-lived, as much as 25-30 years. Thus, retrofitting a single piece of equipment can provide benefits for decades.
- Retrofitting construction equipment with advanced emission controls and cleaner fuels has the potential to produce even greater reductions in pollutants than replacing it with new equipment.
- Emission standards for existing nonroad equipment are less strict than for equivalent on-highway diesel vehicles so the emission reduction potential from retrofitting nonroad equipment is significant.
- Much construction equipment is relatively stationary, operating within a single metropolitan area for its whole existence, unlike trucks, which may operate in all regions of the country. Thus, retrofitting construction equipment can provide a full-time benefit for a large number of residents, particularly in areas that are out of attainment for air quality standards, whereas a truck may spend most of its working hours outside of densely populated or polluted areas.

**Solution:** Allowing equipment owners to expense (immediately write off) the cost of emissions-reduction equipment would encourage owners to buy equipment that provides a benefit to society but none directly to the owner. Currently, construction equipment owners who retrofit equipment are at a disadvantage compared to those who do not retrofit, because retrofit devices may be costly to purchase, install, and maintain. Expensing means that there would not be a financial penalty for purchasing and installing pollution-control equipment.

There is precedent in the tax code for such a writeoff. Internal Revenue Code sec. 179A(c)(1)(A) allows expensing up to \$50,000 for

“Retrofit parts and components. Any property installed on a motor vehicle which is propelled by a fuel which is not a clean-burning fuel for purposes of permitting such vehicle to be propelled by a clean-burning fuel—

- (i) if the property is an engine (or modification thereof) which may use a clean-burning fuel, or
- (ii) to the extent the property is used in the storage or delivery to the engine of such fuel, or the exhaust of gases from combustion of such fuel.”

The deduction should cover the cost of installation as well as the equipment itself. Again, there is precedent. Sec. 179A(e)(3) states “The cost of any qualified clean-fuel vehicle property referred to in subsection (c)(1)(A) shall include the cost of the original installation of such property.”

Eligible equipment should include any device on EPA’s Verified Technology List of specific pollution control devices for different models of diesel engines.

**Discussion:** Currently there are few retrofit devices being installed by construction equipment owners. The cost is high, there is no direct benefit to the owner, and suitable devices are unavailable for many types of equipment. As long as retrofitting remains voluntary, device manufacturers are unlikely to offer retrofit devices for some kinds of equipment, particularly the numerous models that exist in small numbers. In contrast to trucks, for which thousands of vehicles of relatively few models are produced, there are thousands of different types of diesel-powered construction equipment, many with very limited production. A financial incentive to install retrofit equipment will be needed to induce manufacturers to produce the devices.

Alternative financial incentives include grants and tax credits. EPA and California have had small-scale grant programs that have been successful in demonstrating the effectiveness of diesel retrofits. Typically, there is a limit on the number of grants awarded each year and the grant program is “discretionary” funding, which means Congress must specifically appropriate the money, unlike tax incentives. This makes the amount to be awarded very uncertain, which is a disincentive for the research, development, manufacturing, and marketing needed to bring a new device to market.

The Internal Revenue Code (sec. 30) includes a tax credit for 10% of the cost of a “qualified electric vehicle” up to a maximum credit of \$4,000. Use of the credit reduces the depreciation that can be claimed on the vehicle, further lowering the effective rate of credit. Oregon has had a “clean diesel retrofit tax credit” of 35% since January 1, 2000, but in the first 3-1/2 years, no taxpayer has applied for it. An official in charge of administering the credit believes that the rate is not high enough to encourage purchase of retrofit devices. A further drawback of tax credits is that the incentive varies with the taxpayer’s tax bracket, whereas expensing and grants provide an equal benefit to all.

**Conclusion:** Diesel retrofit devices for construction equipment have the potential of significantly reducing emissions of harmful pollutants. But equipment owners currently have no incentive to invest in these often-expensive devices. Allowing them to expense their investment would provide a clear benefit to society and would encourage manufacturers to produce the devices, which in many cases do not currently exist or are not well suited to the broad range of construction equipment.

*For more information, please contact Ken Simonson of the Associated General Contractors of America at (703) 837-5313 or via e-mail at [simonsonk@agc.org](mailto:simonsonk@agc.org).*

## **Legislative Language for Tax Incentive for Retrofitting Diesel-Powered Construction Equipment**

Society as a whole will benefit from reducing emissions from construction equipment but equipment owners get no direct benefit from undertaking the substantial investment needed to retrofit or repower their equipment. Therefore, a tax incentive that fully compensates them for the cost of installing pollution control devices, or replacing an existing engine with a cleaner model, is appropriate. The simplest tax incentive would be expensing, that is, a full write-off for the incremental cost. A model for such a provision already exists in the Internal Revenue Code, namely Code sec. 179A, "Deduction for clean-fuel vehicles and certain refueling property." This language, which currently applies to devices used in, or to fuel, motor vehicles, could be adapted as shown below to apply to nonroad construction machinery.

### **Section-by-section explanation and commentary**

Subsection (a) allows a deduction, in the taxable year in which "qualified diesel-powered construction property" is placed in service, for the cost of such property. *(A full deduction in the year of installation for long-lived property is commonly referred to as expensing.)*

Subsection (b) limits the deduction to \$50,000 per piece of construction equipment *(the same as the maximum allowed under section 179A).*

Subsection (c) defines qualified diesel-powered construction property as being either (1) a qualified retrofit part or component, or (2) a qualified diesel engine, which is acquired for use, and placed in use, by the taxpayer and not for resale.

A qualified retrofit part or component is property which is (A) installed on a piece of diesel-powered construction equipment, (B) included on the Verified Technology List of the Voluntary Diesel Retrofit Program of the U.S. Environmental Protection Agency, and (C) certified by the installer (or the taxpayer, if self-installed) as having been installed in conformance with the specifications included on such list for achieving a reduction of 20 percent or greater in one or more of the pollutants on such list. *(The Verified Technology List is a list posted by EPA of technologies that have been tested and verified as reducing up to four air pollutants. [See <http://www.epa.gov/otaq/retrofit/retroverifiedlist.htm>.] The List enumerates the percentage reduction in each pollutant that can be achieved by installing the specified technology in conjunction with a particular diesel engine type and model year. Currently, all listed technologies achieve a minimum reduction of at least 20 percent for at least one pollutant. The certification requirement and the 20 percent threshold are intended to assure that the tax benefit would flow only to taxpayers that achieved a meaningful reduction in emissions. Because testing each piece of equipment for emission reductions could be very expensive, certification would not require the installer (or the taxpayer, if self-installing) to verify that the emission reduction for a particular piece of equipment is 20 percent or greater. Instead, the installer would certify that the combination of the installed part or component and engine is in accordance with specifications on the EPA list. It is contemplated that, if this legislation is enacted, EPA would separately list any technology that achieved less than a 20 percent reduction in all listed pollutants and that taxpayers would only be able to expense the cost of such technologies if installed with engines for which the listed pollution reduction was 20 percent or greater for at least one pollutant.)*

A qualified diesel engine is any diesel engine which is (A) installed as a replacement for an existing engine on a piece of diesel-powered construction equipment and (B) certified by the installer (or by the taxpayer, if self-installed) to standards of the U.S. Environmental Protection Agency for nonroad diesel engines. These standards are phased in for different model years according to power rating ranges.

*(Diesel engines, unlike retrofit parts and components, are subject to emissions standards that depend on the date the engine is placed in service. This language would require the installer to certify that the replacement engine meets the model-year standards applicable when the engine is placed in service, not when ordered or some earlier date.)*

Subsection (d) includes definitions and special rules. (1) Diesel-powered construction equipment is defined using the same definition for diesel fuel [from section 4083(a)(3)] that applies for fuel excise taxes and the definition used to classify construction for purposes of the North American Industry Classification System. (2) Cost is defined to include cost of installation. (3) Recapture of previously claimed deductions is directed for property that ceases to be eligible for the deduction. (4) Deduction is denied for property used outside the United States or for property which has been expensed under section 179 (“small-business expensing”). (5) Basis reduction is applied to the amount of expensing claimed under this section and such expensing is treated as a depreciation deduction under section 167.

*It is contemplated that House Legislative Counsel will recommend conforming amendments and an effective date. An early effective date would be advisable so as not to encourage taxpayers to defer investing in clean-diesel construction equipment.*

**Sec. \_\_\_\_.** **Deduction for retrofitting diesel-powered construction equipment.**

**(a) Allowance of deduction.** There shall be allowed as a deduction an amount equal to the cost of any qualified diesel-powered construction property. The deduction under the preceding sentence with respect to any property shall be allowed for the taxable year in which such property is placed in service.

**(b) Limitation.** The cost which may be taken into account under subsection (a)(1) with respect to any piece of construction equipment shall not exceed \$50,000.

**(c) Qualified diesel-powered construction property defined.** For purposes of this section, the term “qualified diesel-powered construction property” means a qualified retrofit part or component or qualified diesel engine which is acquired for use by the taxpayer and not for resale, the original use of which commences with the taxpayer, and which is described in either of the following paragraphs:

**(1) Qualified retrofit part or component.** Any property which is—

(A) installed on a piece of diesel-powered construction equipment,

(B) included on the Verified Technology List of the Voluntary Diesel Retrofit Program of the U.S. Environmental Protection Agency, and

(C) certified by the installer (or by the taxpayer, if self-installed) as having been installed in conformance with the specifications included on such list for achieving a reduction of 20 percent or greater in 1 or more of the pollutants on such list.

**(2) Qualified diesel engine.** Any diesel engine which is—

(A) installed as a replacement for an existing engine on a piece of diesel-powered construction equipment and

(B) certified by the installer (or by the taxpayer, if self-installed) to standards of the U.S. Environmental Protection Agency for nonroad diesel engines in effect on the date on which the engine is placed in service.

**(d) Other definitions and special rules.** For purposes of this section—

**(1) Diesel-powered construction equipment.** The term “diesel-powered construction equipment” means any equipment internally or externally powered by diesel fuel (as defined in section 4083(a)(3)) and used for preparation of sites, construction, addition, alteration, repair, or maintenance of buildings or engineering projects.

**(2) Cost includes cost of installation.** The cost of any qualified diesel-powered construction property referred to in subsection (c) shall include the cost of the original installation of such property.

**(3) Recapture.** The Secretary shall, by regulations, provide for recapturing the benefit of any deduction allowable under subsection (a) with respect to any property which ceases to be property eligible for such deduction.

**(4) Property used outside United States, etc., not qualified.** No deduction shall be allowed under subsection (a) with respect to any property referred to in section 50(b) or with respect to the portion of the cost of any property taken into account under section 179.

**(5) Basis reduction.**

(A) In general. For purposes of this title, the basis of any property shall be reduced by the portion of the cost of such property taken into account under subsection (a).

(B) Ordinary income recapture. For purposes of section 1245, the amount of the deduction allowable under subsection (a) with respect to any property which is of a character subject to the allowance for depreciation shall be treated as a deduction allowed for depreciation under section 167.

*For more information, please contact Ken Simonson of the Associated General Contractors of America at (703) 837-5313 or via e-mail at [simonsonk@agc.org](mailto:simonsonk@agc.org).*

**[DISCUSSION DRAFT]**

FEBRUARY 18, 2004

108<sup>TH</sup> CONGRESS  
2<sup>D</sup> SESSION

**H. R.** \_\_\_\_\_

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IN THE HOUSE OF REPRESENTATIVES

Mr. BRADY of Texas introduced the following bill; which was referred to the  
Committee on \_\_\_\_\_

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**A BILL**

To amend the Internal Revenue Code of 1986 to allow tax-  
payers to expense the cost of retrofitting diesel engines  
used in construction in order to reduce air pollutants.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “\_\_\_\_\_ Act of 2004”.



1 **SEC. 2. DEDUCTION FOR RETROFITTING DIESEL-POWERED**  
2 **CONSTRUCTION EQUIPMENT.**

3 (a) **IN GENERAL.**—Part VI of subchapter B of chap-  
4 ter 1 of the Internal Revenue Code of 1986 is amended  
5 by inserting after section 179A the following new section:

6 **“SEC. 179B. DEDUCTION FOR RETROFITTING DIESEL-POW-**  
7 **ERED CONSTRUCTION EQUIPMENT.**

8 “(a) **ALLOWANCE OF DEDUCTION.**—There shall be al-  
9 lowed as a deduction an amount equal to the cost of any  
10 qualified diesel-powered construction property. The deduc-  
11 tion under the preceding sentence with respect to any  
12 property shall be allowed for the taxable year in which  
13 such property is placed in service.

14 “(b) **LIMITATION.**—The cost which may be taken into  
15 account under subsection (a) with respect to any piece of  
16 construction equipment shall not exceed \$50,000.

17 “(c) **QUALIFIED DIESEL-POWERED CONSTRUCTION**  
18 **PROPERTY DEFINED.**—For purposes of this section, the  
19 term ‘qualified diesel-powered construction property’  
20 means a qualified retrofit part or component, or qualified  
21 diesel engine, which is acquired for use by the taxpayer  
22 and not for resale, the original use of which commences  
23 with the taxpayer, and which is described in either of the  
24 following paragraphs:

25 “(1) **QUALIFIED RETROFIT PART OR COMPO-**  
26 **NENT.**—Any property—



1           “(A) installed on a piece of diesel-powered  
2 construction equipment,

3           “(B) included on the Verified Technology  
4 List of the Voluntary Diesel Retrofit Program  
5 of the Environmental Protection Agency, and

6           “(C) certified by the installer (or by the  
7 taxpayer, if self-installed) as having been in-  
8 stalled in conformance with the specifications  
9 included on such list for achieving a reduction  
10 of 20 percent or greater in 1 or more of the  
11 pollutants on such list.

12           “(2) QUALIFIED DIESEL ENGINE.—Any diesel  
13 engine—

14           “(A) installed as a replacement for an ex-  
15 isting engine on a piece of diesel-powered con-  
16 struction equipment and

17           “(B) certified by the installer (or by the  
18 taxpayer, if self-installed) **【Is there language**  
19 **missing here?】** to standards of the Environ-  
20 mental Protection Agency for nonroad diesel  
21 engines in effect on the date on which the en-  
22 gine is placed in service.

23           “(d) OTHER DEFINITIONS AND SPECIAL RULES.—  
24 For purposes of this section—



1           “(1) DIESEL-POWERED CONSTRUCTION EQUIP-  
2           MENT.—The term ‘diesel-powered construction  
3           equipment’ means any equipment internally or exter-  
4           nally powered by diesel fuel (as defined in section  
5           4083(a)(3)) and used for preparation of sites, con-  
6           struction, addition, alteration, repair, or mainte-  
7           nance of buildings or engineering projects.

8           “(2) COST INCLUDES COST OF INSTALLA-  
9           TION.—The cost of any qualified diesel-powered con-  
10          struction property shall include the cost of the origi-  
11          nal installation of such property.

12          “(3) RECAPTURE.—The Secretary shall, by reg-  
13          ulations, provide for recapturing the benefit of any  
14          deduction allowable under subsection (a) with re-  
15          spect to any property which ceases to be property el-  
16          igible for such deduction.

17          “(4) PROPERTY USED OUTSIDE UNITED  
18          STATES, ETC., NOT QUALIFIED.—No deduction shall  
19          be allowed under subsection (a) with respect to any  
20          property referred to in section 50(b) or with respect  
21          to the portion of the cost of any property taken into  
22          account under section 179.

23          “(5) BASIS REDUCTION.—

24                 “(A) IN GENERAL.—For purposes of this  
25                 title, the basis of any property shall be reduced



1 by the portion of the cost of such property  
2 taken into account under subsection (a).

3 “(B) ORDINARY INCOME RECAPTURE.—  
4 For purposes of section 1245, the amount of  
5 the deduction allowable under subsection (a)  
6 with respect to any property which is of a char-  
7 acter subject to the allowance for depreciation  
8 shall be treated as a deduction allowed for de-  
9 preciation under section 167.”

10 (b) CONFORMING AMENDMENTS.—

11 (1) Section 263(a)(1) of such Code is amended  
12 by striking “or” at the end of subparagraph (G), by  
13 striking the period at the end of subparagraph (H)  
14 and inserting “, or”, and by inserting after subpara-  
15 graph (H) the following new subparagraph:

16 “(I) expenditures for which a deduction is  
17 allowed under section 179B.”.

18 (2) Section 312(k)(3)(B) of such Code is  
19 amended by striking “or 179A” each place it ap-  
20 pears in the heading and text and inserting “, 179A,  
21 or 179B”.

22 (3) Section 1016(a) of such Code is amended  
23 by striking “and” at the end of paragraph (27), by  
24 striking the period at the end of paragraph (28) and



1 inserting “, and”, and by adding at the end the fol-  
2 lowing new paragraph:

3 “(29) to the extent provided in section  
4 179B(d).”.

5 (4) Section 1245(a) of such Code is amended  
6 by inserting “179B,” after “179A,” both places it  
7 appears in paragraphs (2)(C) and (3)(C).

8 (c) CLERICAL AMENDMENT.—The table of sections  
9 for part VI of subchapter B of chapter 1 of such Code  
10 is amended by inserting after section 179A the following  
11 new item:

“Sec. 179B. Deduction for retrofitting diesel-powered construc-  
tion equipment.”.

12 (d) EFFECTIVE DATE.—The amendments made by  
13 this section shall apply to property placed in service after  
14 the date of the enactment of this Act in taxable years end-  
15 ing after such date.



# BIG SUCCESS FOR INDUSTRY AND AIR QUALITY IN TEXAS

THE INNOVATIVE TEXAS EMISSIONS RETROFIT GRANT PROGRAM PROVIDES EFFECTIVE INCENTIVES WITHOUT COSTLY GOVERNMENT MANDATES



**A**GC contractors in Texas are part of a remarkably successful voluntary program that may serve as model for the rest of the

nation on how to meet both the needs of industry and EPA air quality goals, without sacrificing either. More than 40 AGC member companies are set to voluntarily

reduce pollution from their construction equipment and vehicles in a notable effort to help clean up the air in Texas.

"It's really a tribute to what can be accomplished when all stakeholders are part of the process in finding a solution," says Bob Lanham, chair of AGC's Environmental Resource Committee. "Because we contractors marched down to the local planning commission and demanded our place at the table, we were able to sit down and brainstorm with local air quality experts. The Texas Emissions Reduction Plan [TERP] was the brilliant result those efforts."

## AGC CONTRACTORS SIGN UP FOR CLEANER AIR

AGC contractors throughout Texas have stepped up to "retrofit" their fleet: a term broadly defined to mean:

- Purchase cleaner equipment;
- Replace old diesel engines;
- Retrofit engines with emission reduction technology and/or; and
- Use cleaner-burning fuel.

As a result of these so-called retrofits, the construction industry will be credited with removing almost 6,000 tons of ozone-producing nitrogen oxide (NOx) from Texas air.

## AGC MEMBERS SIGN UP FOR TERP IN DROVES

SAVING TEXAS FROM A TOTAL OF NEARLY 6,000 TONS OF NOx EMISSIONS OVER NINE YEARS

AGC Applicant	Approved Amount	Project Life (years)	Total Approx. Projected NOx Reduction (tons)	AGC Applicant	Approved Amount	Project Life (years)	Total Approx. Projected NOx Reduction (tons)
AAA Asphalt Paving Inc.	\$48,669	5	6.95	North Texas Contracting Inc.	\$109,830	5	15.69
Acme Brick Company	\$406,000	5	58.02	Odeen Hibbs Trucking Co.	\$285,000	5	40.78
Austin Bridge & Road LP	\$433,000	5	61.94	Schramme Construction Co.	\$13,020	7	1.86
Austin Engineering Co. Inc.	\$9,310	5	1.33	Shumaker Enterprises Inc.	\$208,950	7	29.85
Austin White Lime Co.	\$117,000	5	16.84	Shumaker Enterprises Inc.	\$45,913	5	6.56
Austin White Lime Co.	\$828,000	7	118.36	Southern Mechanical Plumbing Inc.	\$43,841	5	6.26
Austin White Lime Co.	\$26,180	6	3.74	Southwest Constructors Inc.	\$14,693	7	2.10
BFI Waste Systems of North America Inc.	\$204,000	5	29.19	Texas Lehigh Cement Co. LP	\$455,254	7	65.04
Boring & Tunneling Co. of Americo Inc.	\$123,882	5	19.17	Texas Lehigh Cement Co. LP	\$96,670	5	13.81
Boyer Inc.	\$63,889	5	9.13	Texas Lehigh Cement Co. LP	\$130,690	5	18.67
Brown Excavation Co. Inc.	\$39,213	5	5.60	Texas Lime Company	\$226,528	5	41.31
Capital Excavation Co.	\$20,233	5	2.89	Texas Lime Company	\$100,820	5	14.40
Centex Materials LLC	\$221,580	5	32.35	Texas Shafts Inc.	\$206,000	7	29.51
Centex Materials LLC	\$22,533	5	3.22	Texas Shafts Inc.	\$134,890	5	19.27
Cherry Crushed Concrete Inc.	\$460,000	5	65.75	Transit Mix Concrete and Materials Co.	\$249,000	5	35.65
Craig, Sheffield and Austin Inc.	\$17,780	8	2.54	Trinity Materials Inc.	\$495,914	7	89.00
Dallas Area Rapid Transit	\$535,000	9	79.57	TXI Chaparral Steel Midlothian LP	\$105,000	5	15.02
Dean Word Company Ltd.	\$120,000	5	30.26	TXI Chaparral Steel LP	\$48,510	5	6.93
Dean Word Company Ltd.	\$331,000	7	47.42	TXI Operations LP	\$221,000	5	31.71
Dean Word Company Ltd.	\$396,000	7	56.63	TXI Operations LP	\$48,580	5	6.94
Dorsett Brothers Concrete Supply Inc.	\$111,000	5	15.94	TXI Operations LP	\$225,759	5	49.57
Double Eagle Foundation Drilling Inc.	\$35,644	5	5.09	TXI Owen Plant	\$105,280	7	15.04
Durwood Greene Construction LP	\$103,000	5	14.73	Union Pacific Railroad Co.	\$7,187,500	7	1625.08
Elgin Butler Brick Co.	\$65,380	5	9.34	Union Pacific Railroad Co.	\$3,020,000	5	748.91
Ella Contracting Inc.	\$112,381	5	16.05	Union Pacific Railroad Co.	\$3,020,000	5	570.28
Fordyce Ltd.	\$337,000	5	48.18	Vulcan Construction Materials LP	\$1,574,930	7	224.99
Foundation Drillers Inc.	\$346,000	7	49.50	Vulcan Construction Materials LP	\$1,913,450	7	273.35
Four D Construction Inc.	\$25,333	5	3.62	Waste Management of Texas Inc.	\$2,215,000	7	316.44
Haegelin Construction Company Ltd.	\$81,970	5	11.71	Williams Brothers Const. Co. Inc.	\$29,000	5	4.20
Hanson Aggregates Inc.	\$1,225,866	5	175.12	Williams Brothers Construction Co. Inc.	\$3,730,000	5	532.95
J.D. Abrams LP	\$165,900	7	23.70	Yarrington Road Materials LP	\$98,000	7	14.00
James B. Arnold Construction Inc.	\$77,910	5	11.13				
Martin Marietta Materials Southwest Ltd.	\$418,606	6	59.80	<b>Totals for all companies listed</b>	<b>\$33,888,280</b>		<b>5959.98</b>

Showing its strong support, the Texas Commission on Environmental Quality (TCEQ) is awarding pollution reduction grants to these AGC companies totaling approximately \$33.9 million, under the provisions of TERP. "So far, the number of applications has far exceeded the amount of money they had to give away, which is a testament to the outstanding participation rate for this program," says Jennifer Newton director of natural resources and public affairs, AGC of Texas Highway, Heavy, Utilities, and Industrial Branch. "We're really proud of our members and our industry for stepping up to the plate and participating in the program." AGC's Texas chapters helped to forge the legislation that made TERP possible and, once the program went into effect, have sponsored workshops to educate AGC members about how to apply for grants.

Certainly the U.S. Environmental Protection Agency is taking notice of TERP. The program accords well with the agency's philosophy that industry-specific incentives are best. According to Peter Truitt, AGC's point of contact, "TERP shows how well designed incentives can bring results. EPA is paying close attention to what lessons can be learned from that experience. The tremendous response the program has received from contractors fulfills the objectives of our national program (see sidebar, this page), and we'd be delighted if we could get that kind of response nationwide."

### **TERP WILL PRODUCE CLEANER AIR...JUST ASK ENVIRONMENTALISTS**

The TERP program was created by the Texas Legislature to provide financial incentives to construction (and other) companies for voluntarily reducing NOx emissions from their equipment and vehicles. According to TCEQ, these reductions will help to ensure that Texas will meet the upcoming federal Clean Air Act deadlines.

Public Citizen, an environmental and consumer watchdog group that considers the program an unqualified success, confirms TERP's effectiveness in meeting Clean Air Act goals. "TERP is one of the most cost-effective ways to reduce pollution from diesel engines in the state, and AGC's efforts in helping pass the legislation and educate its members has made it a success," says Tom Smith, state director, Texas office, Public Citizen. "The program will effectively reduce nitrogen oxide as well as reduce fine particles and thereby reduce the urban heat that occurs

when the soot absorbs the sun's energy."

The grants contain requirements that the equipment or vehicles must be operated in the applicable area for a defined number of years, so that the emission reductions will be achieved in those areas. The TCEQ has contracted with outside auditing firms to ensure these grant funds are used properly. Companies and governments that receive TERP funds will be audited to make sure the low emissions equipment was obtained or cleaner burning fuel was actually used. According to Steve Dayton, TERP program coordinator, TCEQ, the grant recipients are completely cooperative and accepting of the prospect of audits: "Everyone understands what needs to be done—that this is what EPA needs as proof of compliance—so everything is working as it should. Everyone is stepping up and doing the right thing."

Current legislation authorizes the TERP program through 2008, with

### **ENVIRONMENTAL SOLUTIONS**

Currently, EPA does not require owners or operators of nonroad construction equipment to reduce emissions from their old, in-use diesel engines. Instead, the agency has adopted the "Voluntary Diesel Retrofit Program" to encourage contractors to reduce emissions from such equipment by installing advanced engines and/or emissions control systems.

More information is available on the Internet at

[www.epa.gov/otaq/retrofit/overview.htm](http://www.epa.gov/otaq/retrofit/overview.htm)

yearly funding estimated at more than \$100 million per year. Money to fund the grant program comes in part from fees collected on the sale and use of construction equipment. In addition to these "emission reduction incentive" grants, TERP also offers grants to help expedite the commercialization of cleaner and more cost-effective technologies. The TCEQ presented nine state-wide workshops in August on FY05 funding for TERP emission reduction incentive grants and small business grants and 12 more such workshops in November.

### **WHY RETROFIT?**

Like all Americans, AGC contractors are interested in cleaner air and willing to do their part. If states cannot comply

with the national air quality standards set by the U.S. EPA, construction bans and the loss of highway funds could be triggered. Unfortunately, the limited availability of EPA-verified retrofit devices for nonroad applications and their high cost to purchase, install, and maintain leave fleet owners with few options. Texas is one of only a handful of states that provide direct financial assistance to contractors who retrofit their diesel equipment to reduce emissions.

### **THE WRONG APPROACH**

For many states struggling to meet strict federal air quality standards, new clean diesel technologies seem like a solution. However, the Clean Air Act and EPA regulations preclude states (except California) from requiring retrofitting of old, in-use nonroad engines. Nonetheless, some states and localities are acting in violation of this federal preemption (e.g., New Jersey and New York City). In addition, public owners (mainly, state departments of transportation) are starting to make retrofit a de-facto "requirement" through the use of contract specifications and bid preferences (e.g., California, Connecticut, Massachusetts, and New York City).

AGC is working to educate policymakers on the serious and legitimate concerns surrounding retrofit mandates. A contractor's net worth is determined by the equipment that it owns. Any attempt by the government to render a construction company's fleet obsolete would end that company's ability to borrow money, to bid work, and to bond work. Regardless of the company's size, it's gone overnight. What is more, in today's competitive bid environment, government actions that modify contract awarding procedures to favor certain contractors—depending on whether or not they retrofit—can restrict competition and disenfranchise small and minority-owned construction companies.

For public officials, the challenge is to identify a better incentive structure. TERP is a shining example of how to balance contractor business/economic concerns with air quality goals. The lesson learned is that public-private partnerships can solve air quality problems.

### **FOR MORE INFORMATION**

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