

Cleaner Diesel Makes Good Business Sense

Low-Cost Ways to Cleaner Construction



National Clean Diesel Campaign



Reducing diesel emissions is becoming more important in today's marketplace as construction project owners increasingly call for use of clean diesel practices. Contractors with cleaner diesel operations are finding themselves well-positioned for future business. Funding assistance from state and federal governments might be available to help you reduce engine emissions.

Diesel engines provide the power needed to keep communities running, yet exhaust from these work-horses contains pollutants that can harm public health and the environment. Fortunately, there are low cost ways to efficiently harness the power of diesel engines while also clearing the air around work sites. Now is the time to make your construction fleet cleaner.

"We believe the trend will continue to move toward public entities requiring clean equipment on their projects. And we'd like to think we are positioning our company to be on the cutting edge of that process."

Leonard Cherry
President/Owner
Cherry Company
Texas

How Your Company Can Benefit and What You Can Do

Idle-reduction practices save money. Less idling means fuel savings, extended engine life, and a safer and better work environment for equipment operators.

- Establish and implement an idle-reduction policy.
- Install idle-reduction devices.
- Reward operators for reducing idling.
- Track fuel usage and calculate savings.
- Encourage operators to follow manufacturer-recommended warm-up and cool-down periods.

A company can save \$475 to \$950 per year per vehicle by reducing unnecessary idle time one hour per day (based on \$3.17 per gallon for diesel fuel).



"We have a couple of policies in the company that are driven by both environment and economics. 'No idling' is one of them. We adopted a no-idling policy at least four years ago."

Bob Lanham
Vice President
Williams Brothers
Texas

Preventive engine maintenance helps avoid costly equipment failures, maximizes fuel efficiency, and extends engine life. A well-maintained engine runs more cleanly.

- Address equipment problems promptly.
- Follow manufacturer-recommended preventive maintenance practices.
- Track preventive maintenance needs, schedules, and warranty specifications.
- Inspect equipment daily and address any problems immediately. A smoking engine might indicate a problem that decreases efficiency.

Kimmins Contracting of Tampa, Florida, has saved more than \$300,000 with oil analysis done as part of its preventive maintenance program.



Training equipment operators to run equipment properly and safely increases productivity and safety while reducing maintenance costs, fuel consumption, and emissions. Create in-house training or take advantage of employee training provided by manufacturers or other equipment professionals.

“The cost of the training is miniscule when compared to replacing an undercarriage on a large dozer or fixing a blown tire on an off-highway truck.”

George Schulz
Certified Dealer Instructor
Giles and Ransome, Inc.
Pennsylvania

Switching to ultra low-sulfur diesel (ULSD) fuel reduces engine wear, deposits, and oil degradation. On-site fueling is simplified when both highway vehicles and nonroad equipment use the same fuel.



“We’ve been using ULSD since July 2001... It’s been transparent to us as users that ULSD ends up performing just like our old diesel.”

David Kerrigan
Fleet Services Director
City of Seattle
Washington

Using biodiesel fuel can improve lubricity and reduce engine wear. Check with your equipment manufacturer and be sure to use fuel-grade biodiesel that meets standard D6751 set by the ASTM.

“In the construction business, green has become a priority. Our biodiesel strategy has helped position our company at the top.”

Tom Ambrey
CEO
RAFN Construction
Washington State



Retrofitting equipment enhances the public image of a company, improves the work environment for operators, and can help a company stay competitive in the construction industry — all while reducing harmful emissions.

Installing catalysts and filters verified by the U.S. Environmental Protection Agency or California Air Resources Board ensures the emission reduction and durability of retrofit technologies. Engine upgrade kits are also available and can be installed during routinely scheduled engine rebuilds.

On using equipment fitted with a diesel particulate filter: “I notice it is a lot quieter, a lot cleaner, and it’s a lot friendlier to the people in the neighborhood. I don’t end up smelling like a diesel truck at the end of the day.”

Steve Mobsen
Operation Engineer
Local #14



On using equipment fitted with diesel oxidation catalysts (DOCs), “We’ve noticed a drastic decrease in all the exhaust plumes coming out of the older machines with the DOCs on them.”

Michael Kusbel
TJ Lambrecht
Superintendent
Illinois

Retrofitting equipment is one of the most cost-effective ways to reduce emissions from diesel engines.

“It’s obviously cheaper to retrofit your machines with these diesel particulate filters and diesel oxidation catalysts than it is to bring all new equipment in. I definitely think it makes us more competitive.”

Matt Wilke
Equipment Superintendent
Kiewit
Illinois



Installing new, cleaner engines can lower fuel consumption, improve engine reliability, extend life of equipment, and lower maintenance costs in addition to all of the benefits of retrofitting equipment.



“The equipment performance does actually improve. It’s a newer, more efficient engine. The better technology of today’s electronically controlled engines can just out perform mechanical engines.”

Mike Hulon
Product Support Sales Manager
Mustang Caterpillar
Texas



“We are using as much capital as we can afford to upgrade our engines... That is going to be the price of admission to stay in this business.”

Mike Crawford
CEO
Sukut Equipment, Inc.
California

Low-Cost Ways to Cleaner Construction

EPA's Clean Construction USA provides support to contractors, owners, and operators of equipment who want to implement strategies that reduce emissions from diesel engines.

Options include:

- Reducing idling
- Practicing good engine maintenance and properly training operators
- Switching to cleaner fuels
- Retrofitting or repowering existing equipment

“In prior years, we were offered a job or two per year on the kind of project that requires lower machine emissions. Since we started letting people know three months ago that we would have repowered tractors, we’ve gotten three offers to work on projects where the machines have to run clean.”

Sandi Capel
General Manager
Coburn Equipment
California

To learn about funding sources, and to find out more about Clean Construction USA, visit:

www.epa.gov/cleandiesel/construction

For more detailed information about low-cost ways to reduce diesel exhaust, refer to the report at:
www.epa.gov/cleandiesel/construction/publications.htm



EPA420-F-08-008

February 2008