

US EPA ARCHIVE DOCUMENT

Idle Reduction and Clean Construction

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Objectives



- Promote the anti-idling programs with equipment and vehicles to reduce operational costs and diesel emissions
- Knowledge of new technology for emission reduction for sustainable practice which will reduce operational costs

United Parcel Service (UPS) Idling Program

- Since maximizing right turns in 2004, UPS has lowered CO2 emissions by 100,000 metric tons (equivalent to 5,300 cars in a single year)
- Idling for 10 minutes/day wastes an average of 24.6 gallons per year per unit
- In 2010, UPS telematics routing technology provided savings of 63.5 million miles or 6.3 million gallons of fuel

• UPS - <http://www.pressroom.ups.com/Fact+Sheets/ci.Saving+Fuel%3A+The+Benefits+of+No+Idling.prit>





Track Idling with GPS

- On average 1 gallon of fuel is used for every 1 hour idle time
- The biggest fuel saver is driving the speed limit, saving drivers between 15 and 98 cents per gallon

Vehicles	Daily Idling Cost	Yearly Idling Cost
5	\$20.00	\$7,200.00
10	\$40.00	\$14,400.00
15	\$60.00	\$21,600.00
20	\$80.00	\$28,800.00
25	\$100.00	\$36,000.00

Vehicles Idling 1 hour per day @ a fuel cost of \$4.00 per gallon

- Live View GPS - <http://www.liveviewgps.com/reduce+fuel+consumption.html>
- CNN Money

Why Implement an Idling Program?

- Reduce fuel consumption and optimize vehicle performance
- Reduce vehicle emissions to the environment
- Excess idling causes noise pollution and needless engine wear-and-tear





Developing an Idling Policy

- All vehicles and equipment owned, leased, or rented shall not be allowed to idle for more than five (5) minutes, unless:
 - In operations queuing
 - Verify safe operation condition
 - Testing, servicing, repairing or diagnostic
 - Accomplish work which the equipment was designed (i.e. crane)
 - Reach operating temperatures
 - Safe operations

Dallas Forth Worth (DFW) Connector

It's estimated that 20% of all operation hours in the company today are idle time hours.

Potential savings at DFW for reducing Idle time hours by 10%

\$393,539	Fuel
\$61,067	Oil Changes
\$226,174	PM Cost
\$112,684	Repair and Labor Cost
\$793,464	Total Savings



Successful Implementation

- Educate operators
- Myth - frequently starting and stopping an engine uses more gas and/or causes additional wear and tear on the vehicle
Fact - today's fuel injection engines, starting systems are more efficient and don't require as much fuel to start an engine
- The worst mileage a vehicle can get is 0 miles per gallon, which occurs when it idles
- Idling, whether at a job site or pulling off the road to make a cell phone call, consumes gas that could be saved by simply turning off the engine



New Technologies

- What are some other technologies to reduce emissions?
 - Hybrid Equipment/Vehicles
 - Telemetrics to measure
 - Pavegen – converting steps to energy

Evaluating Hybrid Vehicles

Hybrid Fusion MSRP \$26,600
\$0.07 / mile
\$33,419



Conventional MSRP \$23,000
\$0.15 / mile
\$71,614

**Estimated Potential Fuel Savings Using Entire Fleet
of Hybrid Vehicles: \$38,194**



Education is Key

- **Information on the benefits of an Idling Policy needs to be shared not regulated**
- **Businesses will easily see the advantage without the cost of enforcements or inspections**
- **Now with the ability to collect data, it is easy to educate the industry**

Generating Energy from Footsteps

- Paving slab converts kinetic energy from footsteps into renewable electricity
- Low carbon steel & recycled car tires
- 4-8 watts per footstep



• pavegen systems - <http://www.pavegen.com/>





Associated General Contractors of America

- **Nation's leading construction trade association**
- **Presence in every state**
- **Actively involved in EPA's National Clean Diesel Campaign**
- **Active partner in many regional Clean Diesel Collaboratives**
- **Working with Clean Air Task Force to get Clean Construction Program included in legislation**



Construction Industry

- Important role in the U.S. economy
- Struggling with this recession and implementation of major regulations (emissions, stormwater, lead-based paint)
- The equipment contractor's use is a huge investment



AGC's Strategy to Lower Diesel Emissions

- **Identify diesel retrofit incentives**
- **Educate**
- **Secure funding for diesel retrofit**
- **Enact retrofit tax incentive and voucher program**
- **Demonstrate emission reductions**
- **Promote tax credit for purchases of new diesels**
- **Promote tax credit for capital expenditures**



AGC's Success Stories

- **Bonus in Texas for low bidder to reduce emissions**
- **Diesel Emissions Reduction Act**
 - Makes grants and loans available
 - Actively support and participate
 - 6 AGC Chapters have won grants



AGC's Concerns

- There are already numerous unfunded mandates by cities and states to have contractors meet stringent requirements
- If requiring mandates must provide resources due to the investment already made
- If contractor cannot use equipment then the ability to borrow funds, obtain surety bonding, and render security is crippled



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FREE at www.agc.org/enviroforum

Environmental Information & Networking for Construction Professionals

Environmental Forum

Your company is a member of AGC of America through your chapter membership. Take advantage of your membership benefits.

Through the Forum, AGC members stay informed, access resources, discuss key issues and advocate for the industry.

As a member of the Associated General Contractors of America, you can join AGC's Environmental Forum for free. Whether you have an executive level interest in environmental issues or you require more detailed information, the Forum will work for you—and your schedule. Forum members connect and interact with each other, keep pace with the latest environmental developments and can participate in association policymaking on environmental matters.

Improve Your Bottom Line. Learn ways your company can save money, protect itself against risk and achieve environmental compliance and confidence.

Educate the Government. Industry input helps regulators understand the unique environmental challenges on your jobsites. Forum members strengthen AGC's message on Capitol Hill and at the federal regulatory agencies.

See Results. Together, we have made significant gains to improve the stormwater program, clarify wetlands (Section 404) permitting, streamline oil spill planning requirements, avert costly and excessive lead-based paint sampling/testing, preserve the use of fly ash and facilitate green construction efforts.

More challenges are ahead, join the Forum and help AGC make a difference.

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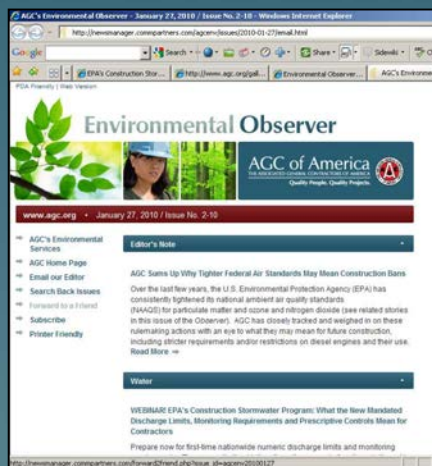
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Access flyer at [on Convention Thumb Drive!](#)



About the Forum

- **FREE!** Enviro Info & Networking for AGC Members
 - Stay Informed – **AGC's Environmental Observer**
 - Access Resources
 - Discuss Key Issues – eForum, Events, etc.
 - Advocate for the Industry





2012 Contractors Environmental Conference

www.agc.org/enviroconf2012



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For More Information

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