

Quality People. Quality Projects.

# **Collaborative**

October 26-28, 2015 Providence, RI

- Nation's leading construction trade association
- More than 26,000 member companies
- Nationwide network of 93 chapters
- AGC members involved in all facets of building local and national infrastructure





#### AGC members are reducing congestion and emissions,





building green,



delivering renewables,



and protecting water quality.



Congratulations to AGC's 2015 Alliant Build America Award Winners.

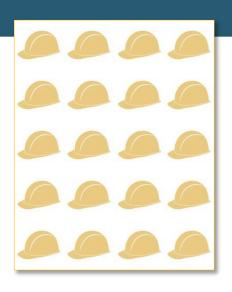


- AGC members own and operate diesel equipment
- AGC has been actively involved in EPA's National Clean Diesel Campaign since its inception
  - Active in many regional Clean Diesel
     Collaboratives
  - Recognized "partner" at Clean Diesel 10 Meeting
  - Supporter of grants/rebates

- Construction industry plays important role in U.S. economy
  - Operates in every state
  - Employs more than 6.4 million workers (2015)
- Nonresidential spending in the U.S. in 2014 totaled \$618 billion (\$348 billion private, \$271 billion public)
- Construction contributed 3.8% to national GDP (2014)



- Most construction companies are small, low-margin businesses
  - In 2013, there were 658,500 construction firms in the U.S. 92% employed
     fewer than 20 workers

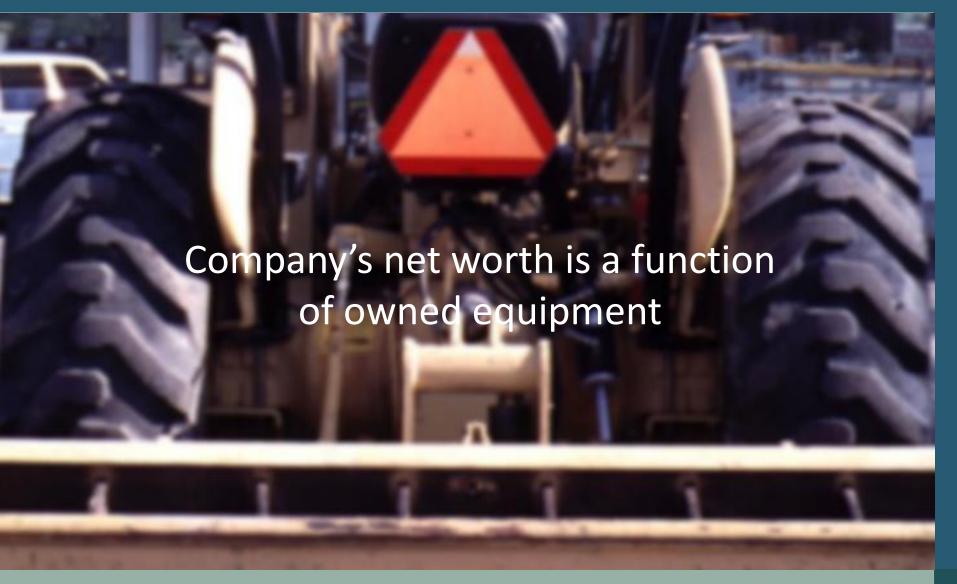


- Forbes Magazine recently reported Highway & Bridge Construction as one of least profitable U.S. industries (avg. net profit margins 2.2%)
- The net earnings margin before income taxes decreased from 3.2% in 2011 to 2.3% in 2012

Source: Ken Simonson, Chief Economist, AGC of America, from Prof. Stephen Fuller, George Mason University, CFMA Annual Financial Survey and U.S. Government Sources



#### **Construction Economics**





- Equipment lasts 25+ years
- Equipment is a huge investment

# **Key Fact**

Equipment in the field today met any applicable federal engine emission rules at the time of purchase

# **Key Fact**

"legal" to continue
to operate equipment
"as built"
until the end
of its useful life



- Successful diesel retrofit program must recognize contractor business interests
- For many construction companies, retrofit =
  - − ★COST

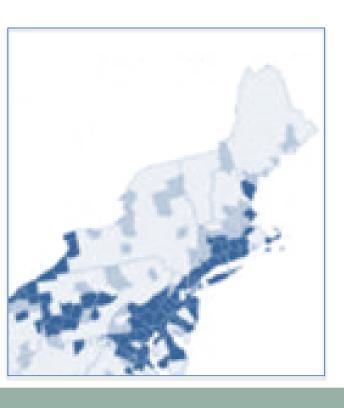
Purchase price, installation, owner's time, substitute equipment rental or foregone revenue, engine maintenance, training on new technology, etc.

− ★RISK

Aftertreatment integration challenges, engine enhancement challenges, few verified technologies, impact to engine warranty, etc.



- Where construction industry finds itself
  - NAAQS are getting tighter
  - Off-road diesel equipment emits PM and NOx



- Road that lies ahead...
  - States struggling to develop compliant SIPs
  - Deficient state SIP = loss federal highway funds
  - Non-attainment areas must demonstration "conformity" of highway/transit plans to SIPs or no new federal approvals or funds

"State and local agencies should check with EPA before promulgating any state or local regulations or programs mandating retrofit projects, due to potential issues related to Clean Air Act section 209 requirements.

Retrofit projects that are preempted under applicable provisions of Clean Air Act section 209 ... may not be included in the SIP."

 Diesel Retrofits: Quantifying and Using Their Emission Benefits in SIPs and Conformity -Guidance for State and Local Air and Transportation Agencies (EPA, Feb. 2014)



# Summary of States' Rights to Regulate Nonroad Diesel Engines

	0-175 hp	>175 hp
New Nonroad Engines	No State or Local Emission Control Standards	Only Calif. Can Adopt Emission Control Standards
Old (In-use) Nonroad Engines	Only Calif. Can Adopt Emission Control Standards; Other States May "Opt-in"	



# **Fundamentals of the OFFROAD Model**

For each model year, and each horsepower and equipment category, emissions and/or diesel fuel consumption are equal to the following:

Pieces of Equipment (Population)

X Average
Maximum
Rated
Horsepower

Average Hours

of Operation
(Activity)

X Average Load
During
Operation

X Emission/Fuel Factors



# **Updated 2009 Emissions Inventory**

- Started with original OFFROAD model
- Based on DOORS data, updated inputs for Population, Average Maximum Horsepower and Age Distribution
  - Also applied scaling factor to "low use" equipment
- Applied Actual Fuel Consumption factor



Workshop on Information Regarding the Off-Road, Truck and Bus, and Drayage Truck Regulations

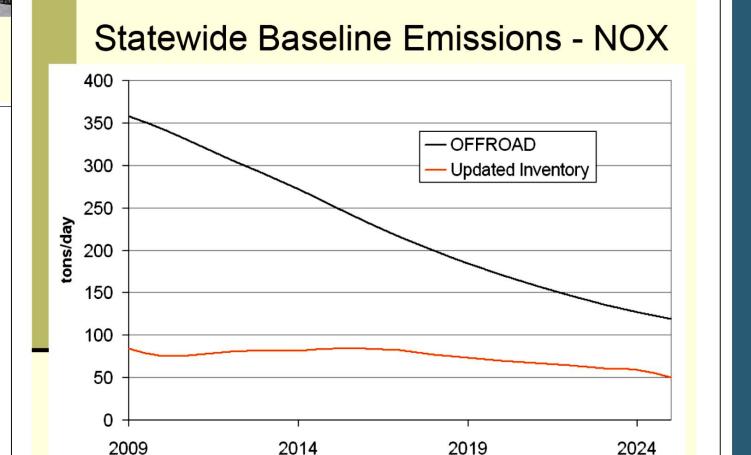




August/September 2010

California Environmental Protection Agency Air Resources Board

Off-Road Rule Inventory



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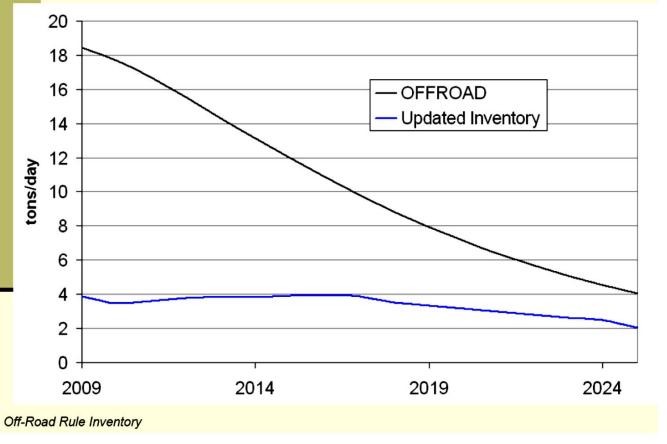


August/September 2010

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# State and Local Decisions Must Be:

- Driven by understanding of industry/equipment ownership
  - Consistent with Clean Air Act

Based on good data



# What works?

- -Retrofit grant, loan, rebate programs
- -CMAQ Program funds
- -Equipment idle reduction and control
- Operator training, preventive maintenance
- -Contract INCENTIVES
- Transportation improvement projects (reduce congestion & improve air quality)



- Emission Reduction
   Incentives for Off-road
   Diesel Equipment Used in
   Port/Construction
   Sectors May 2005
- Cleaner Diesels: Low Cost
   Ways to Reduce
   Emissions from
   Construction Equipment
  - March 2007





- What causes concern?
  - Use restrictions on equipment
  - Early fleet turnover or existing fleet obsolescence
  - Mandated equipment modification or replacement
  - Any standard that undermines the federal role in setting engine emissions standards
  - Bid preferences or contract restrictions

Bid preferences and contract restrictions disrupt competitive bid processes; shut out small- and minority-owned businesses, which typically own older fleets.



- Full funding and reauthorization of DERA
- Outreach re: diesel grants, rebates
- Use of CMAQ funds for construction retrofits on federal aid highway projects
- Federal investment tax credit for retrofit expenses
- Communicate acceptable clean diesel strategies; educate on unacceptable strategies

# National Funding Assistance Program Grants

### AGC Success...



Pey to the AGC of KENTUCKY 2,000,000
TWO MILLION DOLLARS

U.S. EPA

Constructors Association of Western Pennsylvania (AGC) partnered with Allegheny Cty Health Dept., awarded \$925,000 grant

AGC of Kentucky awarded \$50,000 and \$2M grants



- AGC of Greater Florida members shared in \$1.6M grant awarded to Florida Refrigeration and Air Conditioning Contractors Assoc.
- AGC of Minnesota members shared in \$3M and \$977,243 grants awarded to Minn. Enviro. Initiative
- Oregon- Columbia AGC was awarded \$120,000 grant
- AGC of Greater Milwaukee received \$500,000 grant
- AGC members also have benefited from funds awarded by EPA to state/local agencies — indicating many public-private partnerships at play



- Investment tax credit for purchase of new diesels
- Investment tax credit for capital expenditures to retrofit, rebuild or repower existing diesel engines to achieve emission control improvements



## Thank You!

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