Ohio Environmental Council

[UNLEASHING THE POWER OF GREEN]

Fleet Manager Solutions

Reducing diesel emissions will cut hazardous air pollutants.

Emission control equipment

Level Three (for example DPF)

- Cost: $5,000-$9,000
- Benefits: reduces particulate matter by 60-90%
- DPFs need to be cleaned every 100,000 miles
- Lasts 7-15 years; most have a warranty of three years
- Must be used with ULSD fuel on engines built after 1994

Level Two (for example partial or flow-through filter)

- Cost ranges from $5,000 to $6,000
- Overall pollution reduction of 50-75%
- Lasts 7-15 years
- No ash cleaning
- Works best on 1991-2002 engines

Level One (for example DOC)

- Cost: $1,000-$2,500
- Benefits: reduces particulate matter emissions by 20-30%
- Does not require special maintenance
- Lasts 7-15 years

Closed crank case filter

- Cost: $500-$1000
- Benefits: eliminates 90%+ of in-cabin crank-case emissions of fine particulate matter pollution
- Filter needs to be changed at every oil change or after 500 hours of operation (whichever is first)
- Lasts 5 years

Compressed natural gas

- Reduces particulate matter by 70-90% if using catalyst technology to reduce ultra fine matter
- Used only with new CNG Engines
- Costs $30,000 more than a diesel bus (cost of fuel is 2/3 lower than diesel)
- Low maintenance compared with gasoline-operated vehicles

Anti-Idling is a simple and cost-effective way to reduce emissions and protect students' health.

Idling reduction

Anti-idling policy

Anti-idling is a simple and cost-effective way to reduce emissions and protect students' health as well as your own. Below are easy steps you can take to develop and implement an anti-idling policy:

- Reduce idling by turning off engines stopped for more than a few minutes to save money and lives.
- Replace older buses with new, low-emission buses.
- Position buses so tail pipes are not blowing directly towards another bus.
- Position buses away from the school air -intake vents.
- Reward drivers for adhering to the policy.
- Establish a formal anti-idling policy - this can aid in securing funding.

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Diesel emissions have been linked to asthma, lung and heart disease, cancer, and breathing ailments.

Diesel particulate filters reduce particulate matter by 60-90% and last 7-15 years.

B20 Reduces particulate matter by 10%; B100 reduces particulate matter by 40%.

Idling reduction

Heaters

- Accelerates and maintains window defrosting and defogging
- Reduces emissions and eliminates idling
- Stops white smoke
- Extends the life of the engine
- Lowers fuel cost substantially by reducing idling time
- Costs roughly $1,000 to purchase
- Cuts down on warm-up time by preheating the engine

Engine plug-ins

- Reduces idling time by warming engine over night
- Saves fuel cost
- Reduces harmful emissions
- One person can plug in several buses
- Saved fuel translates into higher utility bill (weigh options)

Cleaner alternative fuels

Ultra Low Sulfur Diesel (ULSD)

- Reduces particulate by 5-10% with no other Emission-control equipment
- ULSD only allows 15 parts per million of pollution-causing sulfur compared to 500 parts per million with regular diesel
- Can be used in new or old diesel engines with no cleaning of tank
- ULSD is available nation wide

Biodiesel

- B20 reduces particulate matter by 10%; B100 reduces particulate matter by 40%
- B20 (20% pure biodiesel/80% conventional diesel) can be used in any conventional diesel engine
- Typically $.10 to $.20 more per gallon than diesel
- No extra maintenance required
- Most tailpipe emissions reduced compared with conventional diesel, with the exception of a slight increase of NOx
- Federal tax incentive may now cover the incremental cost