



Reducing Vehicle Idling: Government's Role

**Steve Plotkin
Argonne National Laboratory**

**National Idling Reduction Planning Conference
Albany, NY
May 17-19, 2004**

***Center for Transportation Research
Argonne National Laboratory***



*A U.S. Department of Energy Laboratory
Operated by The University of Chicago*



All levels of government have a strong interest in reducing idling.

- ALL LEVELS: Diesel particulates/toxic emissions and public health
- FEDERAL: Oil use and greenhouse gas emissions, criteria emissions
- STATE: Ozone air quality standards:
 - NO_x emissions reduction
 - Offset sanctions, loss of transportation funding
- LOCAL: Noise and diesel exhaust



The revised HOS Rules may add to idling time for long distance truckers.

<u>Requirement</u>	<u>New Rule</u>	<u>Old Rule</u>
Off-duty time	10 hours	8 hours
Drive time allowance	11 hours	10 hours
Cycle clock restart after	34 hours	24 hours
On-duty work day	14 hours	15 hours
Extension of work day?	Once/cycle*	Every day

*one cycle = 7/8 days



Possible effects of new HOS rules include:

- 10 hours rest requirement, “unextendable” 14-hour day → increased idling time on multi-day trips
- Pressure to reduce waiting and unloading time
- Pressure to shift to 2-driver operations
- Penalty to multi-stop trips → more part loads, shifts to other modes?



18 States and D.C. already have some form of idling regulations.

- State-wide limits: AZ, CT, HI, MA, MD, DC, MN, NV, NH, NJ, NY, PA, VA
- Local limits: CO, MN, MO, MT, NY, PA, TX, UT
- Exclusions:
 - Sleepers: AZ, CT, UT, NJ
 - Reefers: AZ, CO, CT, HI, MD, DC, MA, NV, NH, NJ, NY, UT
 - Winter: CO, CT, DC, NY, NH



Pending federal legislation has idling provisions.

- Energy Policy Act
 - DOE/DOT Idling Study
 - Potential idle reduction requirements from DOE
 - EPA review of computer models
 - DOE/EPA study of rest areas

- SAFETEA
 - Allow commercial Truck Stop Electrification on Interstates



The federal government and a few States provide idling reduction incentives.

- CMAQ (DOT)
- SmartWay Partnership (EPA)
- Carl Moyer Program (California)
- TERP (Texas)



DOE's 21st Century Truck Partnership seeks to improve idle reduction technology.

- Advanced 5 kW Auxiliary Power Unit
 - 200 pounds, ≤ 0.25 gal/hr @ full load, Tier2 Bin 10, \$400/kW by 2009
- Fuel cell APU
 - 5-30 kW, 35% efficient, \$400/kW by 2015
- Electrical codes and standards for APUs and TSE



A variety of additional policies to advance idle reduction are worth considering:

- Excise tax exemption for APU's incremental cost
- Subtract APU weight from GVW
- Federal, State fleet technology requirements
- National technology standards



Additional policies:

- More direct support for idle reduction: grants, demonstration projects, tax credits
- Emissions credit trading
- Tightening of APU emissions standards

