



# ***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<sub>x</sub> 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.***

---

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

**\* 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 21<sup>st</sup> Century Truck Partnership seeks to improve idle reduction technology.**

- **Advanced 5 kW Auxiliary Power Unit  
200 pounds,  $\leq$  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

