



# Draft Recommended Oregon Idling Law



**Please  
Do Not Idle**

Why? Because idling:

- 1) adds fumes into the air
- 2) contributes to global climate change
- 3) wastes fuel
- 4) can damage your engine parts



*Thank you*



**STOP IDLING!**



Young  
lungs at  
work



A reminder from Group Against Smog & Pollution



# Legislative Charge

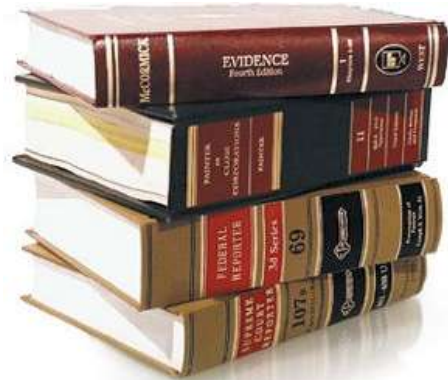
HB 2186 focuses on...

- Unnecessary and long-duration idling
- Medium- and heavy-duty trucks and other commercial vehicles



## Definitions

- **Idling**: an operating mode when a vehicle is not engaged in gear.
- **Commercial Vehicle**: a vehicle that transports persons or property for profit (ORS 801.206)
- **Medium and Heavy-Duty Trucks**: a motor vehicle or combination of vehicles operated as a unit, with a combined weight greater than 14,000 pounds (ORS 468A.795)





## Why Idle?



- Maintain cabin comfort – heating and cooling
- Ensure engine block, fuel and oil remain warm in cold weather
- Operate onboard appliances
- Charge batteries and regenerate particle filter
- Mask noise and provide safety
- Habit, past practice



# What's the Problem with Idling?



- Consumes energy and uses fuel inefficiently
- Increases engine wear and maintenance costs

- Adverse public and environmental health impacts





# Idling and Health Effects for Drivers

- Health effects from exposure to exhaust
- Accidents caused by fatigue



## Lung Cancer and Vehicle Exhaust in Trucking Industry Workers

Eric Garshick,<sup>1,2</sup> Francine Laden,<sup>2,3,4</sup> Jaime E. Hart,<sup>2,3</sup> Bernard Rosner,<sup>2</sup> Mary E. Davis,<sup>3,5</sup> Ellen A. Eisen,<sup>6,7</sup> and Thomas J. Smith<sup>3</sup>

Research

**BACKGROUND:** An elevated risk of lung cancer in truck drivers has been attributed to diesel exhaust exposure. Interpretation of these studies specifically implicating diesel exhaust as a carcinogen has been limited because of limited exposure measurements and lack of work records relating job title to exposure-related job duties.

**OBJECTIVES:** We established a large retrospective cohort of trucking company workers to assess the association of lung cancer mortality and measures of vehicle exhaust exposure.

**METHODS:** Work records were obtained for 31,135 male workers employed in the unionized U.S. trucking industry in 1985. We assessed lung cancer mortality through 2000 using the National Death Index, and we used an industrial hygiene review and current exposure measurements to identify jobs associated with current and historical use of diesel-, gas-, and propane-powered vehicles. We indirectly adjusted for cigarette smoking based on an industry survey.

**RESULTS:** Adjusting for age and a healthy-worker survivor effect, lung cancer mortality increased linearly with jobs associated with regular exposure to diesel exhaust. Mortality increased linearly with years of employment and was associated with current and historical patterns of exhaust exposure, including idling, highway traffic, and loading/unloading activities.

### Materials and Methods

**Population.** Details of the cohort have been described previously (Laden et al. 2007). We obtained detailed computerized work records for unionized employees employed in 1985 (54,319 men and 4,007 women) from four large national companies. We obtained data on death from 1985 through 2000 from the National Death Index through the National Health and Medical Research Council.



# National Truck Idling

## Overnight Idling:

- 666,060 sleeper trucks
- Idle an average 6 hours/day, 300 days/year at .8 gallons/hour
- Idle 830 million hours overnight/yr.
- Consume 670 million gallons idling
- \$1.8 billion in fuel and maintenance costs



# National Truck Idling

## Workday Idling:

- 14,769,882 diesel commercial trucks
- Idle 2.3 billion hours/year
- Consume 1.8 billion gallons idling
- \$5 billion+ in fuel and maintenance costs



# Oregon Truck Idling

## Overnight Idling

- 4,958 trucks/day (Projected increase - 1.8% annually over next 20 years)
- Idle 9 million hours/yr.
- Consume 7 million gallons idling
- \$19 million in fuel and \$1 Million in maintenance/yr.



## Idling Emissions

Nationally

(overnight & daytime):

- CO<sub>2</sub> 25.4 million tonnes
- NO<sub>x</sub> 469,000 tons
- PM 12,800 tons

Oregon:

- CO<sub>2</sub> 72,000 tonnes
- NO<sub>x</sub> 1,300 tons
- PM 36 tons



# Summary

## Idling, Fuel Consumption and CO<sub>2</sub>

Geographic Area	Idle Hours (millions)	Fuel Used (million gallons)	Fuel Cost (Millions) <sup>1</sup>	Maintenance Cost (Millions)	CO <sub>2</sub> (Million Tonnes)
<b>United States</b>					
Overnight	830	670	\$1,800	116	6.7
Workday	2,320	1,850	\$5,000	325	18.7
<b>US Total</b>	<b>3,150</b>	<b>2,520</b>	<b>\$6,800</b>	<b>441</b>	<b>25.4</b>
<b>Oregon</b>					
Overnight	9	7	19	1	0.1



# Idling Controls

- Regulation by state and local jurisdiction
  - No specific anti-idling laws in Oregon but ORS 811.585 could apply in some cases
- Behavioral controls
- Financial incentives
- Education
- Technological approaches
  - On board
  - Off board





## Idle Control Technology – On Board

Auxiliary Power Units

Engine Stop/Start systems

Direct Fired Heaters

Reducing Accessory  
Demand





# Truck Stop Electrification


Efficiently allows housekeeping functions to be powered from the electrical grid



Several locations currently in Oregon and elsewhere around the country



## Inconsistent Nationwide Idling Regulations


  
**Compendium of Idling Regulations**

The information in this table is for reference purposes only and should not be relied upon for regulatory compliance. This information may contain errors and omissions and is subject to change. Actual state, county, or city codes should be referenced for specific requirements. Agency contact information and links to regulations can be found on the website edition of this compendium. *Updated January 2010*

State	Maximum Idling Time	Exemptions
AZ, Maricopa County	5 minutes (30 min. for bus passenger comfort or 60/90 min. if greater than 75° F)  Fines: \$100 — 1st; \$300 — 2nd+ violations	<ul style="list-style-type: none"> <li>- Traffic or adverse weather conditions</li> <li>- Emergency or law enforcement purposes</li> <li>- Power takeoff involving cargo or work functions</li> <li>- Conform to manufacturer's specifications</li> <li>- Maintenance or diagnostics</li> <li>- Hours of Service compliance</li> </ul>
CA	5 minutes  Fines: Minimum \$300, Subsequent penalties can range from \$1,000 to \$10,000	<ul style="list-style-type: none"> <li>- Bus passengers are onboard or 10 minutes prior to boarding</li> <li>- Traffic conditions</li> <li>- Queuing beyond 100' of residential</li> <li>- Adverse weather conditions or mechanical difficulties</li> <li>- Vehicle safety inspection</li> <li>- Service or repair</li> <li>- Power takeoff involving cargo or work functions</li> <li>- Prevent safety or health emergency</li> <li>- Emergency vehicles</li> </ul>
CA, City of Sacramento	5 minutes (prohibits refrigeration unit operation within 100' of residential or school unless loading/unloading)  Fines: Not <\$100 nor >\$25,000 per violation	<ul style="list-style-type: none"> <li>- Traffic conditions/control</li> <li>- Vehicle safety inspection</li> <li>- Service or repair</li> <li>- Conform to manufacturer's specifications</li> <li>- Power takeoffs involving cargo or work functions</li> <li>- Prevent safety or health emergency</li> <li>- Hours of service compliance at truck/rest stop</li> <li>- To recharge hybrid electric vehicles</li> </ul>

State	Maximum Idling Time	Exemptions
FL	5 minutes  Fines: TBD	<ul style="list-style-type: none"> <li>- Traffic conditions</li> <li>- Emergency or law enforcement purposes</li> <li>- Verify vehicle is safe to operate</li> <li>- Power work-related operations</li> <li>- Prevent safety or health emergency</li> <li>- Sleeping or resting in a sleeper berth (exemption expires Sept. 30, 2013)</li> </ul>
GA, City of Atlanta	15 minutes (25 minutes if less than 32°F for passenger comfort/safety)  Fines: \$500 minimum	<ul style="list-style-type: none"> <li>- To perform needed work</li> <li>- Traffic conditions</li> <li>- Natural gas or electrical vehicles</li> </ul>
IL <b>&lt;UPDATED&gt;</b> Cities: Aux Sable, Goose Lake, Oswego Counties: Cook, DuPage, Lake, Kane, McHenry, Will, Madison, St. Claire, Monroe	10 minutes within any 60 minute period (30 min. within any 80 min. period: waiting to weigh, load or unload freight; no limit: less than 32°F or greater than 80°F)  Fines: \$90 – 1st; \$150 – 2nd & subsequent convictions in 12 month period	<ul style="list-style-type: none"> <li>- Less than 8,000 lbs. GVWR</li> <li>- Traffic conditions/controls</li> <li>- Prevent a safety or health emergency</li> <li>- Emergency or law enforcement purposes</li> <li>- Service or repair</li> <li>- Government inspection</li> <li>- Power takeoffs involving cargo or work functions</li> <li>- Resting in a sleeper berth</li> <li>- Mechanical difficulties</li> <li>- Queuing</li> <li>- Idle reduction technologies</li> </ul>
IL, Chicago <b>&lt;NEW&gt;</b>	3 minutes in any 60-minute period (No limit: <32° F or >80° F)  Fines: \$250	<ul style="list-style-type: none"> <li>- Emergency vehicles</li> <li>- Power auxiliary equipment</li> <li>- Service or repair or government inspection</li> <li>- Traffic conditions</li> <li>- Idle reduction technologies</li> <li>- Mechanical difficulties</li> <li>- Exhaust filter regeneration</li> </ul>
MA	5 minutes  Fines: Not <\$100 -1st; Not <\$500 for each succeeding offense	<ul style="list-style-type: none"> <li>- Being serviced</li> <li>- Delivery for which power is needed &amp; alternatives unavailable</li> <li>- Associate power needed &amp; alternatives unavailable</li> </ul>
MD	5 minutes  Fines: Not <\$500	<ul style="list-style-type: none"> <li>- Traffic conditions or mechanical difficulties</li> <li>- Heating, cooling, or auxiliary equipment</li> <li>- Conform to manufacturer's specifications</li> <li>- Accomplish intended use</li> </ul>
ME	5 minutes in any 1 hour period (No limit: < 0° F; 15 min/hr. 0° - 32° F)  Fines: \$25 - \$500 – 1st offense; \$150 - \$500 for each subsequent offense (M RSA §585-K(5))	<ul style="list-style-type: none"> <li>- Traffic conditions</li> <li>- Prevent safety or health emergency</li> <li>- Emergency or law enforcement purposes</li> <li>- Maintenance, servicing, repairing, or diagnostic purposes</li> <li>- State or federal inspections</li> <li>- Power work-related operations</li> <li>- Sleeper berth a/c or heat during rest or sleep periods</li> <li>- A/C or heat while waiting to load/unload</li> <li>- Mechanical difficulties if receipt of repair is submitted within 30 days</li> </ul>



# EPA Model State Idling Law

Consensus effort to promote uniform requirements and exemptions across all jurisdictions



Foster greater compliance and ease implementation





# Draft Recommended Oregon Idling Law

Applies to...

- highway commercial diesel vehicles
- load/unload locations

Limits idling to....

- 5 minutes in any 60 minute period
- 30 minutes for load/unload locations





# Draft Recommended Oregon Idling Law

## Exemptions to idling limit:

1) Emergency

&

law enforcement





# Draft Recommended Oregon Idling Law

## Exemptions to idling limit:

2) On-highway  
traffic conditions





# Draft Recommended Oregon Idling Law

## Exemptions to idling limit:

3) Prevent  
safety or health  
emergency





# Draft Recommended Oregon Idling Law

## Exemptions to idling limit:

4 ) Power takeoff

&

auxiliary equipment





# Draft Recommended Oregon Idling Law

## Exemptions to idling limit:

5) Vehicle safety inspection



6) Maintenance, service,  
repair, diagnostic,  
mechanical difficulties,  
including DPF  
regeneration





# Draft Recommended Oregon Idling Law

## Exemptions to idling limit:

7) Armored vehicle





# Draft Recommended Oregon Idling Law

## Conditional Exemptions (Expire after 3 years):

- Passenger bus, 15 minutes in any 60 minute period
- Occupied vehicle w/sleeper, < 32°F or > 75°F
- Occupied vehicle while waiting to load/unload





# Draft Recommended Oregon Idling Law

## APU, Generator Set, etc.

Operating idle reduction technology to reduce main engine idling...

- permitted for 2006 or older commercial diesel vehicles
- 2007 and newer models: APU requirements comparable to California



# Draft Recommended Oregon Idling Law Enforcement:

Applies to...

- vehicle owner and/or operator
- load/unload location owner





# Draft Recommended Oregon Idling Law

## Penalties

- First Offense: Warning ticket
- Second and subsequent offenses: States vary

## Enforced by Police



# Draft Recommended Oregon Idling Law



Comprehensive

Balanced