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MaineDOT

A Report on An Act to Establish Clean Air No-Idling Zones

Maine Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017

Maine Department of Transportation
16 State House Station
Augusta, Maine 04333-0016

January 2008

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January 31, 2008

Hon. Dennis S. Damon, Chair
Representative Boyd P. Marley, Chair
Joint Standing Committee on Transportation
123rd Maine Legislature
100 State House Station
Augusta, ME 04333

RE: LD 533, *An Act to Establish "Clean Air – No Idling" Zones*

Dear Senator Damon, Representative Marley, and Distinguished Members of the Committee:

LD 533 proposed establishing clean air zones to restrict unnecessary idling of motor vehicle engines to protect public health and the environment by reducing tailpipe emissions and conserving fuel. The bill as written raised many questions concerning authority and implementation. In March 2007, the Joint Standing Committee on Transportation voted unanimously not to pass LD 533 and directed the Departments of Environmental Protection (DEP) and Transportation (MaineDOT) to work with all interested parties on the feasibility of implementing such policies.

Specifically the DEP and MaineDOT agreed to study the feasibility of:

- a) designating Clean Air Zones within 100 feet of public buildings that are designated as non smoking areas;
- b) prohibiting idling within 100 feet of Maine State Ferry Service loading areas;
- c) reduced idling within 100 feet of drawbridges;
- d) estimated costs to implement these policies; and
- e) possible funding sources

In addition, the DEP reviewed idling regulations adopted by the Northeast States as well as a model rule developed by the U. S. Environmental Protection Agency (EPA) for limiting idling of commercial diesel vehicles.

Attached is a report that summarizes the efforts by the partners to formulate effective strategies to reduce idling emissions.

In summary, the departments strongly support reducing emissions from unnecessary idling as a cost effective way to reduce harmful pollution and conserve fuel.

Sincerely,

David P. Littell, Commissioner
Department of Environmental Protection

David A. Cole, Commissioner
Department of Transportation

Cc: Members, Joint Standing Committee on Natural Resources



A Report on LD 533 An Act to Establish Clean Air No-Idling Zones

Background

In the first regular session of the 123rd Legislature, a bill (LD 533) was proposed which would have established no-idling “Clean Air Zones” at public buildings, Maine State Ferry Service loading areas and approaches to drawbridges. Clean Air Zones, which are currently voluntarily adopted in various locations across Maine, restrict unnecessary idling to protect public health and the environment by reducing tailpipe emissions and conserving fuel. Although LD 533 was not enacted, efforts to continue voluntary participation were encouraged and the Joint Standing Committee on Transportation directed the Department of Environmental Protection (DEP) and the Department of Transportation (MaineDOT) to work with interested parties on the feasibility of implementing such policies.

According to the U. S. Environmental Protection Agency (EPA), exposure to diesel exhaust, even at low levels, is a serious health hazard and can cause lung damage in addition to respiratory problems such as asthma and bronchitis. Diesel emissions also increase the risk of lung cancer and are well-documented asthma triggers and may increase the severity of asthma attacks. Asthma is currently the number one cause of missed school days for American children with more than 1 in 10 children in New England reporting asthma attacks. One recent health study found diesel exhaust pollution inside school buses that is five to fifteen times higher than the levels outside, an increase that can in part be attributed to idling.¹

In 2002, the Maine Department of Education (DOE) and DEP launched a statewide initiative to reduce student exposure from the exhaust of diesel school buses. The two departments sent a joint letter and informational materials to Maine public school superintendents to raise their awareness of the adverse health risks posed by exposure to vehicular exhaust. The DEP collaborated with the DOE and the Maine Association of Pupil Transportation (MAPT) to reduce school bus idling statewide by developing comprehensive outreach materials for school officials, transportation directors, bus drivers and others. These informational materials included a model no-idling policy as well as other emission reduction strategies including parking configurations,

¹ John Wargo PhD., Environment and Human Health, Inc., Children’s Exposure to Diesel Exhaust on School Buses (2002).

alternative fuels, and retrofit technologies. One of the initiatives included a statewide program to create no-idling Clean Air Zones in school yards.

Based on the success of the DEP Clean School Bus No-idling Program, volunteers from the Maine Chapter of the Sierra Club and the Maine Council of Churches campaigned for Clean Air Zones in Freeport. The volunteers worked with members of the Freeport community to raise awareness of the adverse health effects and the contributions to climate change from idling vehicles. The volunteers used community-based social marketing techniques and tools developed by Dr. McKenzie-Mohr, an internationally recognized expert on sustainability psychology. Numerous studies show that behavior change rarely occurs as a result of simply providing information and that stewardship behavior is most effectively achieved through initiatives delivered at the community level.

Building on the success of the Freeport Clean Air Zone Project; the Clean Air Zone logo and *Drivers Stop Your Engines* slogan continue to be used as a recognizable trademark. The key for the campaign's success is that it is implemented by community volunteers rather than using a less effective large-scale information campaign.

The Sierra Club, the Council of Churches, the American Lung Association of Maine and Maine Clean Communities formed a partnership and wished to expand the success of the Freeport Clean Air Zone initiative, proposing legislation (LD 533) that would have designated Clean Air Zones in all Maine communities.

Impacts of Idling

An idling engine can release twice as many exhaust fumes as a vehicle in motion. This pollution can cause significant health problems and contribute to climate change, smog, and increased air toxics. According to EPA, each minute your vehicle idles releases 23 grams of carbon dioxide, the main culprit in global climate change, into the air. McDonald's Restaurants have 17,000 drive-thru's worldwide. If every day only one car idled at each of them for five minutes, those cars would release 780 tons of carbon dioxide into the atmosphere in a year.

Idling diesel trucks also emit exhaust which contains significant levels of fine particulates. Fine particulates in the air are a serious public health problem because they can cause lung damage and premature death if the exposure is significant. People with existing heart or lung disease, asthma or other respiratory problems are most sensitive to the health effects of fine particulates. Unlike smokestacks which put their emissions high into the air, vehicles idle precisely where people breathe.

According to the American Lung Association of Maine, people with asthma can be particularly sensitive to air pollutants such as vehicle exhaust. Approximately 130,000 people in Maine have asthma, including almost 30,000 children. With the costs of treating asthma in Maine exceeding \$150 million annually, a no-idling regulation would reduce exposures to environmental stress that can aggravate the condition of these individuals. In addition to the health impacts of idling, one of the most powerful arguments to reduce idling is an economic one. Unnecessary idling wastes fuel, and wasted fuel is wasted money. For virtually every trucking company, fuel is the

second largest expense after labor. On average, an idling truck consumes one gallon of fuel per hour.

Clean Air Zones at Public Buildings

The partner organizations met last spring and discussed the obstacles in requiring municipalities to establish Clean Air Zones within 100 feet of public buildings. It was discovered that even with the success of the non-smoking ban *inside* public areas, there is no consistency in designating no-smoking setbacks *outside* public buildings. State government has a policy of no-smoking within 100 feet of a State office building, but municipalities statewide have not consistently adopted this policy. It would be problematic to coordinate no-idling areas in designated no-smoking areas when there is no established statewide policy.

However, the partners agreed to continue their successful education outreach efforts for establishing Clean Air Zones in communities while working with DEP and MaineDOT on reducing idling at Maine State Ferry Service loading areas and at approaches to drawbridges. In addition, the partner organizations, DEP and MaineDOT discussed funding opportunities for education and outreach materials and signs.

The Maine Partners for Cool Communities Coalition (MCC), which includes the Maine Chapters of the Sierra Club, Council of Churches, American Lung Association, and Physicians for Social Responsibility was formed to mobilize community support around the Mayor's Agreement and for the development of climate action plans at the local level. MCC facilitates discussions among municipal, business and resident audiences on creating and implementing an annual 2% Solution Plan for energy efficiency. Their goal is for community members to pledge to reduce their energy consumption by 2% per year to decrease their greenhouse gas emissions which adversely contribute to global climate change.

The DEP has partnered with the MCC to conduct an education and outreach campaign in diverse communities to raise public awareness of health and environmental impacts from idling vehicles and to engage individuals, schools and other organizations in improving air quality and reducing greenhouse gases by fostering no-idling stewardship behaviors. DEP's materials for the Clean Air Zone no-idling campaign compliment the Maine Cool Communities 2% Solution Plan as an effective strategy to reduce greenhouse gas emissions.

Maine State Ferry Sites Become Clean Air/No-Idling Zones

MaineDOT is participating in the Clean Air Zone program by placing signs that state "Drivers, please stop your engines!" at all Maine State Ferry Service terminals. The action supports the MCC's efforts to raise public awareness of the health effects from air pollution. DEP provided Clean Air Zone signs to MaineDOT to be placed at the mainland side ferry service loading areas to raise public awareness and reduce idling through voluntary compliance. Educational materials developed and provided by DEP of the benefits of not idling were also placed in the ferry terminals.

The DEP and MaineDOT held a press conference in August at the Maine State Ferry terminal in Rockland to encourage drivers to shut off their engines. Volunteers from the Maine Chapter of the Sierra Club and the Maine Council of Churches spoke with drivers and distributed literature outlining the many good reasons not to idle while waiting for the ferry -- idling causes pollution, wastes costly fuel and can trigger asthma attacks and negatively impact other health problems. The event received great media coverage that led to increased community interest to develop no-idling programs. See Appendix A which includes a Bangor Daily News article with the headline *State discourages idling at ferry terminals* and the DEP press release *Maine State Ferry Sites Become Clean Air/No-Idling Zones*.

MaineDOT supports the no-idling initiative because putting up these signs at Ferry Service terminals fits well with an array of state efforts to improve air quality, like developing alternate transportation modes, and compressed natural gas- and propane-powered bus systems.

Park and Ride Facilities

The MaineDOT, in partnership with the Maine Turnpike Authority, are also posting Clean Air Zone signs at 51 Park and Ride facilities throughout the state. There are 2200 parking spaces in these much-used lots. The goal is for commuters to become aware of the problem and idle less when parked. It is anticipated that all signs will be installed by early 2008.

Traffic Control at Drawbridges

The MaineDOT currently has nine active drawbridges in Maine. When these drawbridges are in use, traffic is often backed up and many vehicles can remain running, causing an increase in unnecessary emissions. This coming spring, the Maine DOT will be signing these drawbridges with Clean Air Zone signs provided by the DEP. We hope that this signage will work as a reminder to the impacts of unnecessary idling. Because several drawbridges (the Sarah Mildred Long and the Memorial Bridge) are shared with New Hampshire, MaineDOT will only sign the southbound approaches to these bridges. See Appendix B a list of these drawbridges.

Funding Opportunities

Recognizing the importance of education and outreach, funding was secured through an EPA grant for the Maine Air Toxics Initiative (MATI) to purchase more Clean Air Zone signs and informational materials for the partners to expand the no-idling campaign to other communities.

The DEP has also applied for an EPA Mobile Sources Outreach grant to fund a proposal to use community-based social marketing tools and techniques and to engage individuals, schools and other organizations in improving air quality and reducing health and climate impacts from pollution from mobile sources. The grant would fund the printing of signs and informational materials and provide funding for interns to serve as coordinators for community efforts among volunteers and the school community.

Funding may also be available through Congestion Mitigation and Air Quality (CMAQ), a U.S. Department of Transportation program that funds state and local efforts to reduce air pollution

from mobile sources. CMAQ funds are intended to contribute to the attainment and maintenance of the National Ambient Air Quality Standards under the Clean Air Act. Safe Accountable Flexible Efficient Transportation Equity Act a Legacy for Users (SAFETEA-LU) amended CMAQ in 2006 and allowed priority in distributing funds for diesel retrofit technology.

The Maine Public Utilities Commission (PUC) State Energy Program administers a small business loan program. The purpose of this program is to assist small commercial, non-profit, and manufacturing facilities (less than 50 FTE employees or less than \$5 million in annual sales) with funding for PUC-approved energy conservation measures by providing loans up to \$35,000 at 3% interest (current fixed rate). The Finance Authority of Maine (FAME) assists PUC with the management of this program by providing a credit analysis, and preparing loan documents. Funding, disbursement and repayment of loans are all processed through PUC. Several vehicle owners have received a loan for installing auxiliary power units which, while curtailing unnecessary idling, will pay back the investment costs quickly in fuel savings.

Clean Government Initiative

In Maine, we have established the Clean Government Initiative to help state agencies and state-supported institutions of higher learning meet applicable environmental compliance requirements and to incorporate environmentally sustainable practices into all state government functions. This Initiative is jointly directed by the commissioners of the DEP and the Department of Administrative and Financial Services, the chancellor of the University of Maine System and the president of the Maine Community College System.

On November 16, 2006 the University of Maine established a campus-wide no-idling program in Orono. The University's efforts can act as a model for other Maine campuses and a statewide no-idling initiative for all of state government.

No-idling Regulation

The Joint Standing Committee on Transportation requested that DEP and MaineDOT review idling regulations adopted by states with similar climates as Maine and report back to the Committee with recommendations for Maine adoption of regulations.

In May 2004 at the National Idle Reduction Planning Conference, the trucking industry identified the inconsistent pattern and design of state and local vehicle idle restriction laws across the country that make knowledge, understanding, and ultimately compliance an issue for truck drivers and owners. Approximately 15 states and dozens of local jurisdictions have idling laws. All of the Northeast states with the exception of Maine and Vermont regulate idling emissions. Most recently, in July 2007 Rhode Island adopted a comprehensive regulation that restricts idling of all engines including non-road and locomotive engines. See Appendix C for a *Compendium of Idling Regulations* for various locations.

In response to the concerns of the trucking industry, EPA has conducted a series of public workshops. On May 4, 2006, EPA released the product of the workshops in the form of a model state idling law for states to consider adopting. The purpose of the EPA model law is to protect

public health and the environment by reducing tailpipe emissions while conserving fuel and maintaining adequate rest and safety of all drivers. The trucking industry was part of the stakeholder process and approved the model law provided it exempted sleeper berth idling in states that do not offer financial assistance for truck owners and operators to purchase idling reduction technologies or where truck stop electrification facilities are not readily available. While EPA's model state rule is limited to heavy-duty diesel vehicles, it could easily be modified to include gasoline powered vehicles. See Appendix D for EPA's *Model State Idling Law*.

EPA is not presently promulgating any type of regulation regarding vehicle idling. Their current role is facilitating the creation of more consistent idling laws around the country which will achieve greater fuel savings, emission reductions, and compliance with such laws.

LD 2056 *An Act to Conserve Gasoline and Preserve Clean Air*

In the current legislative session, Representative Hinck introduced LD 2056 *An Act to Conserve Gasoline and Preserve Clean Air*. This bill is based on the EPA Model State Idling Law but also includes gasoline-powered vehicles with the exception of private passenger vehicles. This bill would require gasoline-powered and commercial diesel-powered vehicles greater than 10,000 pounds to not idle for more than five minutes in a 60 minute period. Industry stated at the EPA-sponsored workshops that five minutes is an adequate time to warm up or cool down a diesel engine in moderate weather.

In addition, LD 2056 proposes that an owner of a location where a truck loads and unloads may not cause the vehicle to idle longer than thirty minutes. Under this provision, the driver of the vehicle is exempt from idling at load/unload locations for purposes of air conditioning or heating while waiting to load or unload. This exemption recognizes the need to deploy idle reduction technologies and strategies to reduce truck idling while loading and unloading.

This proposed legislation strikes a balance between truck drivers and owners of load/unload locations for mutual responsibility to reduce truck idling. Truck drivers noted at the EPA workshops that it is often logistical problems at the load/unload locations that create long wait times causing the driver to idle to maintain comfort. Participants at the workshops believed that holding the location owner accountable might lead to changes resulting in less wait time and reduced idling.

The bill stipulates when the ambient temperature is at or below freezing (32° F) a motor vehicle is allowed to idle ten minutes in any 60 minute period. The DEP recommends that idling be increased to 15 minutes in any 60 minute period below freezing and that a vehicle idle as necessary when below 0 degrees Fahrenheit following Rhode Island's exemption.

LD 2056 does not apply to an occupied vehicle with a sleeper berth compartment which idles for purposes of air conditioning or heat during a rest or sleep period. This bill includes numerous exemptions that recognize that there are times when idling is unavoidable such as in traffic.

MATI evaluated strategies to reduce air toxics from mobile source pollution. Adopting a no-idling regulation was a top recommendation by the Air Toxics Advisory Committee (ATAC) as a cost-effective way to reduce air toxics statewide.

The MATI Mobile Sources Subcommittee explored cost-effective strategies for air toxic reductions from mobile sources in both the on-road and non-road sectors. Based on the 2005 Mobile Sources Inventory, light-duty gas vehicles and trucks make up 75% of the air toxics emissions from the on-road sector. Passenger cars and light-duty gas trucks comprise 92% of the volatile organic compound emissions which are precursors to harmful ground level ozone. Heavy-duty diesel on-road trucks are responsible for 74% of Maine's fine particulate emissions.

In 2007, significant reductions (90%) in diesel particulate emissions were achieved with the phase-in of 15 ppm ultra-low-sulfur diesel in combination with advanced pollution control technologies used for meeting EPA's 2007 heavy-duty diesel engine standards. Despite the impressive progress made in developing and introducing clean vehicles and fuels, motor vehicles still contribute a significant portion of the emission inventory for ozone, fine particulate matter and air toxics because of the increased number of vehicles and miles they travel.

While more costly to implement and enforce than a voluntary program, the air toxics reductions would be more than three times greater from adopting a mandatory no-idling regulation than implementing only a voluntary program. The MATI subcommittee estimated that a no-idling law in combination with community education and outreach could reduce idling emissions by 50%, for a net savings of \$11,641 per toxicity-weighted ton per year. This estimate was based on all registered vehicles idling five minutes a day and consuming one gallon of fuel per hour that costs \$3.00 a gallon. The committee also used the assumption based on Pennsylvania's estimated cost of fifteen million dollars to implement and enforce an idling regulation. Based on the assumption that a regulation would reduce idling time by 50%, a regulation could save \$50 million in fuel cost savings for Maine's citizens. This does not take in consideration reduced medical costs from reduced exposure to air toxics that aggravate respiratory illnesses.

There are a number of implementation measures designed to reduce Maine's greenhouse gas emissions outlined in *A Climate Action Plan for Maine 2004* which was drafted pursuant to Public Law 2003, chapter 237. LD 2056 would specifically implement, to a significant degree, Option #41: "Encourage Anti-Idling Measures: Freight," since reducing idling directly reduces carbon dioxide emissions.

The above elements of LD 2056 provide a good start at reducing idling statewide. Maine should follow the other New England States and adopt a no-idling law that would target all transportation sectors and vehicle categories. Both DEP and MaineDOT believe reducing emissions from unnecessary idling would be a cost-effective way to reduce harmful pollution and conserve fuel.

Appendix A

State discourages idling at ferry terminals

Wednesday, August 29, 2007 - Bangor Daily News

By George Chappell

Special to the Bangor Daily News



Lynne Cayting, mobile units section chief for the Maine Department of Environmental Protection, and Greg Nadeau, deputy commissioner of the Maine Department of Transportation, discuss the state's Clean Air Zone program during a public awareness session at the Maine State Ferry Terminal in Rockland Tuesday. Greeters talked with drivers while they waited in line for the ferry about the many reasons not to idle their engines while waiting. (George Chappell photo)

ROCKLAND - To encourage drivers to stop idling their engines, the Maine Department of Transportation unveiled plans Tuesday to participate in the Clean Air Zone program by placing signs urging drivers to "stop their engines" while waiting in line at all Maine State Ferry Service terminals.

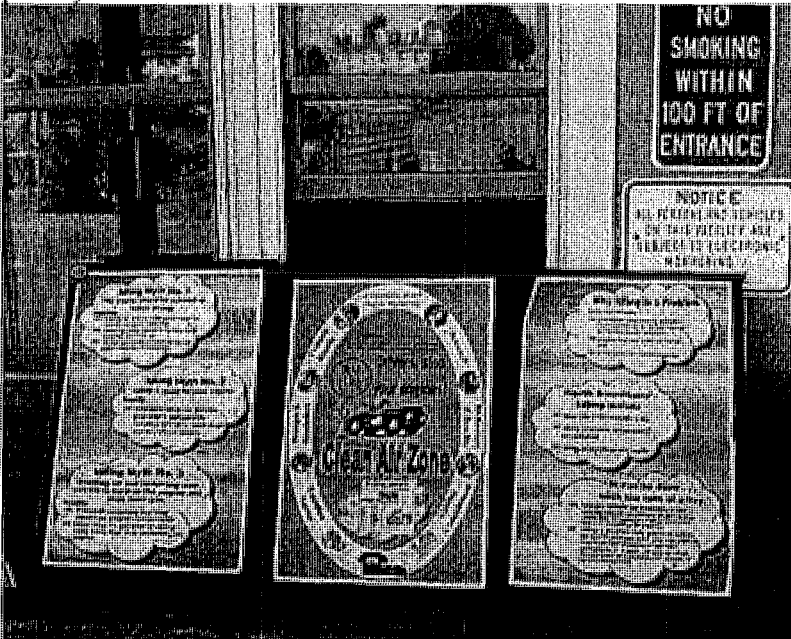
Greeters at the ferry terminal in Rockland spoke with waiting drivers and distributed literature outlining the reasons not to idle. Idling causes pollution, wastes costly fuel and can trigger asthma attacks and aggravate other health issues, the DOT stated in a news release.

The Maine State Ferry Service is part of the Maine DOT.

"I believe in clean air," said Rockland resident Peggy Davis while waiting in line. "I don't idle. Gas is so expensive. I stop my engine when my car doesn't move."

Ray Grotton of South Thomaston called the campaign a "good idea."

Andy Burt, director of the environmental justice program of the Maine Council of Churches, said her organization is one of the partners of the Maine DOT



Greeters for the Maine departments of Environmental Protection and Transportation post no-idling signs at the Maine State Ferry Terminal in Rockland Tuesday.

over

Representatives of the Maine Council of Churches and the Maine Chapter of the Sierra Club distributed literature outlining the many good reasons not to idle to divers while they were waiting for the ferry. The statewide effort is part of a plan to create clean air-no-idling zones. (George Chappell photo)

and Department of Environmental Protection Clean Air program.

"We really want to create the idea of a 'Clean Air Zone,'" she said. Burt and

representatives of DEP and DOT talked with passengers waiting in line for a ferry about the harmful effects of tailpipe emissions. Burt said the Maine Council is collaborating with the Sierra Club's Maine chapter, with which she has a long association, and the American Lung Association of Maine.

Joan Saxe of the Sierra Club said the communities are working on cleaning up the air and contributing to the reduction of global warming.

"This is just one of many steps Maine can take on its way to becoming more environmentally safe and to help reduce [the rate of] childhood asthma in Maine, one of the highest in the country," she said.

The effort is a step in a four-year statewide clean air campaign that has established no-idling zones in schoolyards and downtown districts, and prompted some municipalities to enact no-idling policies.

DOT Deputy Commissioner Greg Nadeau was on hand to express his department's support for the anti-idling initiative. "Putting up these signs at ferry service terminals fits in well with an array of state efforts to improve air quality, like developing alternate transportation modes," he said.

DEP Commissioner David Littell praised the effort.

"The DEP is pleased to recognize our sister agency, the DOT, for raising public awareness of the environmental and health benefits of limiting the idling of vehicles," he said, pointing out that vehicles idle precisely where people breathe.

In last year's legislative session, a bill, LD 533, was proposed that would have established Clean Air Zones at public buildings, Maine State Ferry Service loading areas, and drawbridges. Although the bill was not enacted, efforts to continue voluntary participation were encouraged, Nadeau said.

Norman Anderson of the American Lung Association of Maine said in a prepared statement that people with asthma can be particularly sensitive to air pollutants, such as vehicle exhaust.

"We estimate that approximately 130,000 people in Maine have asthma, including almost 30,000 children," Anderson said. "With the costs of treating asthma in Maine exceeding \$150 million, we might do all we can to prevent avoidable exposures to environmental stress that can aggravate the condition of these individuals."

<http://www.bangordailynews.com>

Appendix B

Active Drawbridges in Maine

BRIDGE	TOWN
Barthers Island Bridge	Boothbay
Naples Bay Bridge	Naples
The Gut	South Bristol
Maine Kennebec Bridge	Richmond/Dresden
Memorial Bridge	Kittery/Portsmouth NH
Songo Lock Draw	Naples
Sarah Mildred Long Bridge	Kittery/ Portsmouth NH
Casco Bay Bridge	South Portland/Portland
Southport Bridge	Southport

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 August 2007*

State	Maximum Idling Time	Exemptions
AZ, Maricopa County	5 minutes (30 min. for bus passenger comfort or 80/90 min. if greater than 75° F) Fines: \$100 — 1st; \$300 — 2nd+ violations	<ul style="list-style-type: none"> - Traffic or adverse weather conditions - Emergency or law enforcement purposes - Power takeoff involving cargo or work functions - Conform to manufacturer's specifications - Maintenance or diagnostics - Hours of Service compliance
CA	5 minutes Fines: Minimum \$100	<ul style="list-style-type: none"> - Bus passengers are onboard or 10 minutes prior to boarding - Resting in sleeper berth beyond 100' of residential units (exemption ends Jan. 1, 2008) - Traffic conditions - Queuing beyond 100' of residential - Adverse weather conditions or mechanical difficulties - Vehicle safety inspection - Service or repair - Power takeoff involving cargo or work functions - Prevent safety or health emergency - Emergency vehicles
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"> - Traffic conditions/control - Vehicle safety inspection - Service or repair - Conform to manufacturer's specifications - Power takeoffs involving cargo or work functions - Prevent safety or health emergency - Hours of service compliance at truck/rest stop - To recharge hybrid electric vehicles
CA, Placer County	5 minutes (prohibits refrigeration unit operation within 100' of residential or school unless loading/unloading) Fines: \$50 Minimum	<ul style="list-style-type: none"> - Traffic conditions/control - Vehicle safety inspection - Service or repair - Conform to manufacturer's specifications - Power takeoffs involving cargo to work functions - Prevent safety or health emergency - Hours of service compliance at truck/rest stops - To recharge hybrid electric vehicles - Operate intermittent equipment - Alternative fueled vehicles - Attainment areas
CO, City of Aspen	5 minutes within any 1 hour period Fines: \$1,000 max. and/or 1 yr. imprisonment	<ul style="list-style-type: none"> - Safety reasons - To achieve an engine temperature of 120°F and an air pressure of 100 lbs/in²
CO, City & County of Denver	10 minutes in any 1 hr period (No limit: less than 20°F for previous 24-hour period or less than 10°F) Fines: Not >\$999 and/or 1 yr. imprisonment	<ul style="list-style-type: none"> - Emergency vehicles - Traffic conditions - Being serviced - Auxiliary equipment
CT	3 minutes Fines: Not >\$5,000 per wk	<ul style="list-style-type: none"> - Traffic conditions or mechanical difficulties - Ensure safety or health of driver/ passengers - Auxiliary equipment - Conform to manufacturer's specifications - Less than 20°F - Maintenance - Queuing to access military installations

Appendix C

State	Maximum Idling Time	Exemptions
DE	3 minutes (15 minutes 32°F to -10°F; no limit: less than -10°F) Fines: \$50-500 per offense	<ul style="list-style-type: none"> - Traffic conditions or mechanical difficulties - Conform to manufacturer's specifications - Repair - Emergency vehicles - Using auxiliary equipment/power takeoff - Power during sleep or resting beyond 25 miles of truck stop with available electrified equipment - Vehicle safety inspections
D.C.	3 minutes (5 Minutes if less than 32°F) Fines: \$500, doubles for each subsequent violation	<ul style="list-style-type: none"> - Power takeoff
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"> - To perform needed work - Traffic conditions - Natural gas or electrical vehicles
IL 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 60 min. period: waiting to weigh, load or unload freight; no limit: less than 32°F or greater than 80°F) Fines: \$50 - 1st; \$150 - 2nd & subsequent convictions in 12 month period	<ul style="list-style-type: none"> - Less than 8,000 lbs. GVWR - Traffic conditions/controls - Prevent a safety or health emergency - Emergency or law enforcement purposes - Service or repair - Government inspection - Power takeoffs involving cargo or work functions - Resting in a sleeper berth - Mechanical difficulties - Queuing
MD	5 minutes Fines: Not <\$500	<ul style="list-style-type: none"> - Traffic conditions or mechanical difficulties - Heating, cooling, or auxiliary equipment - Conform to manufacturer's specifications - Accomplish intended use
MA	5 minutes Fines: Not <\$100 - 1st; Not <\$500 for each succeeding offense	<ul style="list-style-type: none"> - Being serviced - Delivery for which power is needed & alternatives unavailable - Associate power needed & alternatives unavailable
MN, City of Minneapolis	0 minutes in residential areas between 10 pm & 6 am (including refrigeration units) Fines: \$700 maximum and/or 90 days imprisonment	<ul style="list-style-type: none"> - Permitted construction equipment - Compliance with traffic signals or signs - Emergency or law enforcement purposes
MN, City of Owatonna	15 minutes each 5 hours in residential areas Fines: \$1,000 maximum and/or 90 days imprisonment	None
MN, City of St. Cloud	5 minutes, West St. Germain St from 8th St. to 10th Ave. Fines: Not <\$200	None
MO, City of St. Louis	10 minutes Fines: Not <\$1 nor >\$500 and/or imprisonment for not >90 days	<ul style="list-style-type: none"> - Emergency vehicles
MO, St. Louis County	3 consecutive minutes Fines: Maximum \$1,000 and/or 1 year imprisonment	<ul style="list-style-type: none"> - Operating a loading, unloading, or processing device - Emergency vehicles

State	Maximum Idling Time	Exemptions
NV	15 minutes Fines: Not <\$100 nor >\$500 - 1st; Not <\$500 nor >\$1,000 - 2nd; Not <\$1,000 nor >\$1,500 - 3rd; Not <\$1,500 nor >\$2,500 - 4th and subsequent offenses over a 3 yr. period	- Variance has been issued - Emergency vehicles - Snow removal equipment - Repair or maintain other vehicles - Traffic congestion - Maintenance at repair facility - Emission contained & treated per commission - To perform specific task
NV, Clark County (including Las Vegas)	15 minutes Fines: Not >\$10,000	- Variance has been issued - Emergency vehicles - Repair or maintain other vehicles - Traffic congestion - Emission contained & treated per control officer - To perform a specific task - Maintenance at repair facility
NV, Washoe County (including Reno)	15 minutes Fines: Not >\$250 - 1st; Not <\$250 nor >\$500 - 2nd and subsequent offenses	- Emergency vehicles - Snow removal equipment - Repair or maintain other vehicles - Traveling on public right-of-way - To perform specific task - Maintenance at repair facility
NH	5 minutes if greater than 32°F (15 Minutes: 32°F to -10°F; No limit: less than -10°F) Fines: TBD	- Traffic conditions - Emergency vehicles - Power takeoff or heat/cool passengers - Maintenance or diagnostics - Defrost windshield
NJ <UPDATED>	3 minutes (15 min. if stopped for ≥ 3 hrs. & < 25° F) Fines: \$100 for 1 st , \$200 for 2 nd , \$500 for 3 rd , \$1,500 for 4 th & subsequent offenses	- Traffic conditions - Mechanical operations - Waiting or being inspected - Performing emergency services - Being repaired or serviced - Use of sleeper berth in non-residential areas (before April 30, 2010) - Auxiliary power unit/generator set, bunk heaters, etc.
NY	5 minutes Fines: Not <\$375 nor >\$15,000 - 1st; Not >\$22,500 - 2nd and subsequent offenses	- Traffic conditions - Comply with passenger comfort laws - Auxiliary power or maintenance - Emergency vehicles - Within mines or quarries - Parked for more than 2 hrs & less than 25°F - State inspections - Recharging hybrid electric vehicles - Farm vehicles - Electric vehicles
New York City	3 minutes Fines: Not <\$50 nor >\$500 and/or imprisonment for 20 days -- 1st; Not <\$100 nor >\$1,000 and/or imprisonment for not > 30 days -- 2nd; Not <\$400 nor >\$5,000 and/or imprisonment for not >4 months -- 3rd and subsequent offenses	- Emergency vehicles - Operate loading, unloading, or processing device
NY, New Rochelle	5 minutes Fines: Not >\$50 and/or 15 days imprisonment -- 1st; Not >\$100 and/or 45 days imprisonment -- 2nd; Not >\$250 and/or 90 days imprisonment -- 3rd and subsequent offenses within 18 months	- Traffic conditions - Comply with passenger comfort laws - Auxiliary power or maintenance - Emergency vehicles - Within mines or quarries - Parked for more than 2 hrs & less than 25° F - State inspections - Recharging hybrid electric vehicles - Farm vehicles - Electric vehicles

State	Maximum Idling Time	Exemptions
NY, Rockland County <UPDATED>	3 consecutive minutes Fines: Not >\$250 and/or 15 days imprisonment for 1 st ; not >\$1,000 and/or 15 days imprisonment for 2 nd & subsequent offenses	- Traffic conditions - Comply with passenger comfort laws - Power for auxiliary purposes - Maintenance - Performing emergency services
PA, Allegheny County	5 minutes (20 min/hr if less than 40°F or more than 75°F) Fines: Warning -- 1st, \$100 -- 2nd; \$500 -- 3rd and subsequent offenses	- Traffic conditions - Boarding & discharging passengers - Queuing - Cool down/warm up per manufacturer's recommendations - Sleeping/resting in truck - Safety inspections - Ensure safe operations - Emergency vehicles - Power accessory or service equipment - Repair or diagnostics
PA, City of Philadelphia	2 minutes or 0 minutes for layovers (5 min. if less than 32°F; 20 min. if less than 20°F) Fines: \$300	None
RI <NEW>	5 minutes in any 1 hour period (No limit: < 0° F; 15 min./hr between 0° and 32° F) Fines: Not >\$100 -- 1st offense; Not >\$500 for each succeeding offense	- Traffic conditions - Ensure health or safety of driver/passengers - Power work-related operations - Sleeper cabs during federally mandated rest periods (exemption expires July 1, 2010) - Maintenance, servicing, repairing, or diagnostic purposes - State or federal inspections - Emergency or law enforcement purposes - Auxiliary power unit/generator set
TX Cities: Austin, Bastrop, Elgin, Lockhart, Round Rock, San Marcos Counties: Bastrop, Caldwell, Hays, Travis, Williamson	5 minutes, April -- October (30 min. for bus passenger comfort or transit operations) Fines: Varies by jurisdiction	- 14,00 lbs GVW or less - Traffic conditions - Emergency or law enforcement - To perform needed work - Maintenance or diagnostics - Defrost windshield - Airport ground support - Rented/leased vehicles - Hours of service compliance
UT	"A person operating or in charge of a motor vehicle may not permit the vehicle to stand unattended without stopping the engine . . ." Fines: Not >\$750 and/or not >90 days imprisonment	None
UT, Salt Lake County	15 minutes Fines: Not >\$1,000 and/or not >6 months imprisonment - 1st; Not >\$2,500 and/or not >1yr. imprisonment - 2nd and following offenses within 2 yrs.	- Power refrigeration unit if greater than 500 ft from any residence - Heat/cool sleeper berth if greater than 500 ft from any residence - Emergency vehicles
VA	10 minutes for diesel vehicles (3 minutes for all other vehicles) in commercial or residential urban areas Fines: Not >\$25,000	- Auxiliary power

Appendix D



Air and Radiation

EPA420-S-06-001
April 2006

Model State Idling Law

EPA420-S-06-001
April 2006

Model State Idling Law

Transportation and Regional Programs Division
Office of Transportation and Air Quality
U.S. Environmental Protection Agency

MODEL STATE IDLING LAW

I. BACKGROUND

In May, 2004, at the National Idle Reduction Planning Conference in Albany, New York, representatives from the trucking industry identified the inconsistent pattern and design of state and local vehicle idle restriction laws as a barrier to greater implementation of idle reduction technologies. According to the trucking industry, the patchwork of state and local idling laws and the impracticality of the provisions of these laws make knowledge, understanding, and ultimately compliance an issue for truck drivers and owners. Approximately 15 states and dozens of local jurisdictions have idling laws. In response to their concerns, the Environmental Protection Agency (EPA) hosted a series of five public workshops.

The goal of the workshops was twofold: (1) Develop a model state idling law for states to consider adopting that would foster greater compliance through common understanding of the requirements and ease of implementation; and (2) Raise awareness among the trucking industry, states, and environmental groups about each other's needs. For example, states and environmental groups want diesel emission reductions, and truck drivers want to rest comfortably and drive safely.

Existing idle reduction laws served as a starting point for discussion at the workshops hosted by EPA around the country in 2005. The workshops were held in Baltimore, MD; Atlanta, GA; Chicago, IL; San Francisco, CA; and Hartford, CT. Participants had an opportunity to discuss the provisions of these laws, add or modify them, and generally improve the framework of the laws. The language included in this model law represents the majority views expressed by the participants.

EPA is not promulgating any type of regulation regarding vehicle idling. EPA's role is limited to that of a facilitator on behalf of the Federal government to respond to the trucking industry's request to better involve the trucking industry in the development of idle reduction laws and achieve greater compliance with such laws. This model law does not represent the views of EPA or any other Federal department or agency concerning whether any state should, or should not, adopt the model law. Instead, the model law should be considered informational in nature.

II. MODEL STATE IDLING LAW WITH DISCUSSION COMMENTS

General: The model law is divided into eight sections. For purposes of better understanding, each section here includes a summary of some of the discussion points and comments made at the workshops. The model state idling law, without workshop comments, is also included in Section III.

- Section A: Purpose
- Section B: Applicability
- Section C: General Requirement for Load/Unload Locations

- Section D: General Requirement for Vehicles
- Section E: Exemptions
- Section F: Conditional Exemptions
- Section G: Auxiliary Power Units
- Section H: Penalties

Section A: PURPOSE: The purpose of this law is to protect public health and the environment by reducing emissions while conserving fuel and maintaining adequate rest and safety of all drivers of diesel vehicles.

Discussion: Many participants expressed concern that current idle restriction laws were passed to reduce vehicle emissions or noise while ignoring other important benefits. These participants want the law to also recognize, as its purpose, that reducing vehicle idling conserves fuel and potentially improves the truck driver's rest and safety. Many felt that the trucking industry's needs or views were not represented in past idle restriction laws, and inclusion of such needs and views would improve the law's effectiveness.

Section B: APPLICABILITY: This law applies to commercial diesel vehicles which are designed to operate on highways (as defined under 49 CFR 390.5), and to locations where commercial diesel vehicles load or unload (hereinafter referred to as "load/unload locations").

Discussion: This model law only addresses diesel vehicles because the majority of the emissions impacts and fuel consumption is from long duration idling diesel vehicles. Participants generally agreed that the law should apply to diesel vehicles. These participants pointed out that diesel engines emit more harmful emissions than gasoline engines. Some participants also voiced the need to include gasoline engines as a growing segment of the vehicle idling population, especially with the increase in remote start technology which is likely to result in more light-duty vehicle idling emissions. States and local jurisdictions are welcome to modify this model to include gasoline engines. Some participants expressed the concern that diesel delivery and service vans used in commercial applications are the source of much idling emissions. These participants preferred weight classifications as a limiting factor, and recommended ranges from a minimum of 8,500 pounds to 10,000 pounds. General agreement was reached on using the term "commercial diesel vehicles" as a means of including the majority of long duration idling diesel vehicles.

Section C: GENERAL REQUIREMENT FOR LOAD/UNLOAD LOCATIONS: No load/unload location owner shall cause vehicles covered by this rule to idle for a period greater than 30 minutes while waiting to load or unload at a location under their control.

Discussion: The objective of this section is to strike a balance between truck drivers and facility owners of load/unload locations. It would create a mutual responsibility to reduce truck idling. Participants expressed a strong desire to address the issue of idling while waiting at load/unload locations (e.g., distribution centers, retail stores, ports, and other

similar facilities), where truck drivers will idle their engines to maintain cab comfort while waiting to load or unload. Many truck drivers noted that it is often logistics problems at the load/unload locations that create long wait times, and during this period they need to idle to maintain their comfort. They believe that they should not be solely responsible for idling in these cases. In fact, they indicated that by holding the load/unload locations accountable for causing these delays, changes might be put into place which would result in less waiting, and therefore less truck idling. States and local jurisdictions view long lines of idling trucks as a significant source of emissions, which is of concern especially if the load/unload location is near residential housing. Consequently, many participants wanted similar language encouraging load/unload locations to adopt technologies or behaviors to reduce idling. Load/unload location operators can improve their logistics system for processing truck loading and unloading, implement a call-in system when trucks are ready to be processed, or provide a waiting room for truck drivers until they are ready to be processed. Where the cause of the long wait times is due to load/unload location owner behavior, and not due to forces outside of their control (e.g., weather), then the load/unload location owner should bear some of the responsibility to implement measures to reduce idling.

Note, the language in this section applies to facilities that “cause” idling while trucks are waiting to “load or unload.” This language does not apply to truck stops or plazas because truck drivers do not load or unload at these locations. Moreover, truck stop owners or operators are not “causing” a truck driver to idle. This section is limited to load/unload location owners that “cause” idling due to their own behavior. Participants considered and rejected adding the term “permit” idling as part of the location owner’s liability. The rationale for rejecting this term was based on the need to address the underlying reason for queue idling which was found to be, at times, an active behavior on the part of the facility owner. “Permit” idling confers a passive situation which is not necessarily linked with any action on the part of the facility owner.

Section D: GENERAL REQUIREMENT FOR VEHICLES: No owner or operator of a vehicle shall cause or permit vehicles covered by this rule to idle for more than 5 minutes in any 60 minute period except as noted in sections E and F, and except as provided in section C in the case of a load/unload location.

Discussion: Most idle restriction laws have a general time limit, but the rationale for the time limit is usually not explained or understood. In this case, it was noted that some exemptions found in other idling laws require no more than five minutes of engine idling to accomplish certain tasks. This section attempts to bundle some exemptions under the umbrella of a general time limit. For example, warming-up or cooling-down a diesel engine in moderate weather takes only about five minutes (in extreme weather conditions the truck owner or driver should invest in an alternative device to keep the engine and fuel warm, and should not rely on the main engine for this function). Similarly, the required pre-trip inspection requires an air brake pressure test which typically takes less than five minutes of engine idling. The rest of the inspection can be conducted without the engine operating. If a state or local jurisdiction would rather create specific

exemptions for engine conditioning or pre-trip inspection, they can add these sections as additional exemptions. However, the majority of participants felt that fewer exemptions make for easier compliance and enforcement because it promotes greater consistency and understanding of the requirement. This section includes the term “permit” idling. The rationale for including this term here but rejecting it for load/unload facility owners is that the truck owners retains greater control over their drivers and the operation of their vehicles.

Section E: EXEMPTIONS: Section D does not apply for the period or periods where:

1. A vehicle idles while forced to remain motionless because of on-highway traffic, an official traffic control device or signal, or at the direction of a law enforcement official.

Discussion: Participants recognized the need for this exemption as it involves a situation outside the truck driver’s control. Participants recommended adding “on-highway” to avoid allowing trucks queuing at a distribution center (off the highway) from claiming this exemption. Queuing and distribution centers are addressed under Section C: GENERAL REQUIREMENT FOR LOAD/UNLOAD LOCATIONS.

2. A vehicle idles when operating defrosters, heaters, air conditioners, or installing equipment solely to prevent a safety or health emergency, and not as part of a rest period.

Discussion: This exemption was originally advanced during the workshops to allow idling for the safe operation of the vehicle during adverse weather conditions. However, many workshop participants felt that this language was too broad and created many loopholes. This subsection was therefore revised to require that the idling be necessary to prevent a safety or health emergency (e.g., school bus breaks down in cold weather and idles to keep its occupants warm), so as to differentiate this need from cabin comfort needs during a truck driver’s rest period.

3. A police, fire, ambulance, public safety, military, other emergency or law enforcement vehicle, or any vehicle being used in an emergency capacity, idles while in an emergency or training mode, and not for the convenience of the vehicle operator.

Discussion: Some participants in the conferences cautioned that this exemption could potentially be abused under the guise of public service. Therefore, language was specifically inserted to ensure that the vehicle must be in an emergency or training mode for the exemption to apply.

4. The primary propulsion engine idles for maintenance, servicing, repairing, or diagnostic purposes if idling is required for such activity.

Discussion: Similar to the emergency exemption above, workshop participants recommended language guarding against abuse. Therefore, the language indicates that

idling must be “necessary” for the exemption to apply. Interpreting what is “required” is a mechanical or electrical function of the activity, so its interpretation is rather narrow.

5. A vehicle idles as part of a state or federal inspection to verify that all equipment is in good working order, provided idling is required as part of the inspection.

Discussion: During the workshops, there was general agreement on this exemption with language indicating that idling is required for the inspection.

6. Idling of the primary propulsion engine is necessary to power work-related mechanical or electrical operations other than propulsion (e.g., mixing or processing cargo or straight truck refrigeration). This exemption does not apply when idling for cabin comfort or to operate non-essential on-board equipment.

Discussion: Workshop participants agreed that “power take-off” operation is a valid exemption. Participants wanted to guard against using this exemption to operate air conditioning, heating, microwaves, or televisions as an electrical operation (all of which would be considered non-essential on-board equipment) during rest periods, so it was necessary to add the last sentence.

7. An armored vehicle idles when a person remains inside the vehicle to guard the contents, or while the vehicle is being loaded or unloaded.

Discussion: While many would consider this a common sense exemption, like the emergency vehicle exemption above, many participants felt it was important to articulate these exemptions to ensure appropriate interpretation and enforcement by law enforcement officials.

Section F: CONDITIONAL EXEMPTIONS: Subsection D does not apply for the period or periods where:

1. A passenger bus idles a maximum of 15 minutes in any 60 minute period to maintain passenger comfort while non-driver passengers are on-board. The exemption expires (x) years after implementing a state financial assistance program for idle reduction technologies or strategies.

Discussion: Participants felt that passenger buses needed to keep passengers warm or cool while on-board. Some participants argued for 30 minutes as the time needed to condition the bus, but the majority felt that this was excessive and that 15 minutes was sufficient. Others wanted temperature ranges, but the majority felt that ambient temperatures did not reflect interior temperatures, which may be affected by solar intensity. Almost everyone agreed that the driver should not be allowed to idle just for his/her own needs, but that passengers had to be on-board. The time period for the sunset provision should be established by the state/local legislative body. The issue of a sunset

provision is explained below in subsection (2), and a list of financial assistance programs is in Section IV.

2. An occupied vehicle with a sleeper berth compartment idles for purposes of air conditioning or heating during rest or sleep period, until (x) years after implementing a state financial assistance program for idle reduction technologies or strategies, whereupon this exemption expires.

Discussion: All participants felt that this model law should balance the needs of states and industry. In a common theme for the conditional exemptions with a sunset provision, participants agreed that both the trucking industry and states have responsibilities toward reducing idling. Simply passing a state law and placing the financial burden on the trucking industry was not enough, according to trucking industry participants.

The compromise advanced in this provision is for both sides to contribute toward reducing idling. The trucking industry would evaluate, select, and purchase an idle reduction technology; and the state would assist the trucking industry with the purchase by creating a financial assistance program, such as those that currently exist in Minnesota, Arkansas, Pennsylvania, and Oregon. These states, as well as others, are assisting the trucking industry with purchasing idle reduction technologies through grants and loans. These states are in the position to say that since they are helping the industry; therefore the industry should not be idling during their rest or sleep period while in these states.

Since this issue is a matter for states to decide in the context of various competing priorities, the EPA does not take a position on whether exemptions should be made conditional on the enactment and implementation of a state financing program. This is inherently a matter for states to decide in their legislative process.

Under the provision, the sleeper berth exemption would expire after a set period of time in states that provide some kind of financial assistance program. The set period of time should take into account the state's financial resources and legislative concerns, as well as the trucking industry's need for time to evaluate and select an idle reduction technology. More information about different types of loan programs is provided in Section IV. Under this provision, if a state offers no financial assistance, in any form, then the sleeper berth exemption could stay in effect. The theory underlying this provision is that while laws may serve as a deterrent to idling, the effectiveness of a law may be enhanced with some kind of financial program to assist with the purchase and deployment of an idle reduction technology. This view was not shared by all workshop participants. Some states argued that since the idle reduction devices pay for themselves over time, the industry should simply buy them. Others argued that this view should take into account the fact that idle reduction technologies (e.g., auxiliary power units) may require significant up front capital costs. For example, where an average truck owner-operator earns \$30,000 in net annual income, the upfront \$7,000 cost of an auxiliary

power unit may prevent the purchase of this technology even though the unit will pay for itself in a relatively short period.

In addition, financial assistance can increase the deployment of idling reduction technologies which are not directly funded by vehicle owners. For example, EPA has awarded grants to study, evaluate, and deploy idle reduction systems with trucking fleets and in many states, and estimates that the Agency's grant awards of \$6.5 million has leveraged \$15 million in additional resources. Conversely, it can be argued that without some kind of financial assistance program, truck owners may simply pay the fine as a cost of doing business and take their chances on lack of enforcement.

EPA does not have a formal position with respect to the type of financial assistance that states may want to provide, or with respect to the eligibility or user requirements for any financial assistance program.

Participants in the workshops indicated that a loan program could move states and industry closer toward achieving the goals of emission reductions and fuel conservation. It was argued that, by offering a loan instead of a grant, states are in a position to recoup their expenditures. One often cited concern of the trucking industry is that financial assistance programs not be limited to in-state trucking companies only. The industry argued that a loan program should apply to any trucking company traveling through the state since freight truck activity and any emission reductions potentially affects the air quality of multiple states.

3. An occupied vehicle idles for purposes of air conditioning or heating while waiting to load or unload, until (x) years after implementing a state financial assistance program for idle reduction technologies or strategies, whereupon this exemption expires.

Discussion: Many trucking industry representatives blamed their idling on facility owners. This conditional exemption recognizes the need to deploy idle reduction technologies or strategies (e.g., waiting room) for trucks that idle while loading/unloading. Some participants believed that queue idling requires a joint truck driver-facility owner response. Consequently, Sections C (GENERAL REQUIREMENTS FOR LOAD/UNLOAD LOCATIONS) and H (PENALTIES) address location owners.

As with other conditional exemptions, EPA does not take a position as to whether conditional exemptions should be dependent on financial assistance and believes that the matter of state financing is inherently a matter for individual states to decide.

4. A vehicle idles due to mechanical difficulties over which the driver has no control; PROVIDED that the vehicle owner submits the repair paperwork or product receipt (by mail; within (x) days) to the appropriate authority verifying that the mechanical problem has been fixed.

Discussion: Many participants felt that simply exempting a vehicle for mechanical problems was open for abuse because of the difficulty of verifying the claim without potentially harming the truck engine if the claim was accurate. The solution, as recommended by the participants, is to have the truck owner/driver submit the proper paperwork indicating that the mechanical problem was fixed to dismiss the ticket. This approach is already used for similar types of infractions. Some participants cited the additional administrative burden, but the situations where a truck must remain idling (e.g., problem with alternator) are so rare that it would not be overly burdensome to manage.

Section G: AUXILIARY POWER UNITS: Operating an auxiliary power unit, generator set, or other mobile idle reduction technology as a means to heat, air condition, or provide electrical power as an alternative to idling the main engine is not an idling engine.

(1) Operating an auxiliary power unit or generator set on all model year 2006 or older commercial diesel vehicles is permitted.

(2) *[Reserved for sub-section on operating an auxiliary power unit or generator set on 2007 and subsequent model year commercial vehicles once more emissions testing data is available.]*

Discussion: Some truck drivers stated that they received idling citations for operating their auxiliary power unit. They requested that the model law clarify that an idle reduction technology should not be considered an idling engine since its use is to reduce main engine idling. Based on EPA testing and engine certification levels, the emissions of a typical APU are less than a model year 2006 or older diesel vehicle so states should encourage and create financial incentives for the use of APUs on those trucks. As for 2007 and subsequent model year diesel vehicles, more information is needed to better understand how model year 2007 and subsequent engines perform under long duration idling conditions. However, one state provided information that APUs will emit more than 2007 and subsequent model year engines, and this state will require the APUs to meet a more stringent emission level.

The California Air Resources Board issued a regulation to amend Title 13 of the California Code of Regulations. This regulation states that on or after January 1, 2008, the truck drivers operating in California shall not operate an internal combustion auxiliary power system (APS) on any vehicle equipped with a 2007 and subsequent model year primary engine unless the vehicle is equipped with an APS meeting the emissions performance requirements, as follows:

- a. Be equipped with a verified Level 3 in-use strategy for particulate matter control, or
- b. Have its exhaust routed directly into the vehicle's exhaust pipe, upstream of the diesel particulate matter aftertreatment device.

Section H: PENALTIES: The owner and/or operator of a vehicle, and/or the owner of a load/unload location, that is in violation of this law is responsible for penalties as follows.

(1) First offense: Warning ticket issued to vehicle driver and owner, and where applicable, the load/unload facility owner.

(2) Second and subsequent offenses: \$150 citation is issued to the vehicle driver; and/or, \$500 citation issued to the registered vehicle owner or load/unload location owner.

Discussion: Participants felt a warning should first be given, especially if a state is beginning to enforce a state idling law. If the state has a long and well-established history of enforcement in this area, then the warning ticket may not be necessary. Workshop participants indicated that utilizing a warning ticket provides a good opportunity to educate the truck owner about the law and any state financing program, if available. As for the second and subsequent offenses, many states have their own protocol on issuing tickets, and the model language above simply represents some agreement by participants on the amounts. Some states felt the need to penalize the truck owner for a perceived economic gain in idling. Trucking industry participants expressed the desire that states understand that owner operators are less likely to absorb high fines and remain economically solvent, while larger companies could build in these fines as a cost of doing business.

III. MODEL STATE IDLING LAW

(a) **PURPOSE:** The purpose of this law is to protect public health and the environment by reducing emissions while conserving fuel and maintaining adequate rest and safety of all drivers of diesel vehicles.

(b) **APPLICABILITY:** This law applies to commercial diesel vehicles which are designed to operate on highways (as defined under 49 CFR 390.5), and to locations where commercial diesel vehicles load or unload (hereinafter referred to as “load/unload locations”).

(c) **GENERAL REQUIREMENT FOR LOAD/UNLOAD LOCATIONS:** No load/unload location owner shall cause vehicles covered by this rule to idle for a period greater than 30 minutes while waiting to load or unload at a location under their control.

(d) **GENERAL REQUIREMENT FOR VEHICLES:** No owner or operator of a vehicle shall cause or permit vehicles covered by this rule to idle for more than 5 minutes in any 60 minute period except as noted in sections (e) and (f), and except as provided in section (c) in the case of a load/unload location.

(e) **EXEMPTIONS:** Section (d) does not apply for the period or periods where:

- (1) a vehicle idles while forced to remain motionless because of on-highway traffic, an official traffic control device or signal, or at the direction of a law enforcement official.

- (2) a vehicle idles when operating defrosters, heaters, air conditioners, or installing equipment solely to prevent a safety or health emergency, and not as part of a rest period.
- (3) a police, fire, ambulance, public safety, military, other emergency or law enforcement vehicle, or any vehicle being used in an emergency capacity, idles while in an emergency or training mode and not for the convenience of the vehicle operator.
- (4) the primary propulsion engine idles for maintenance, servicing, repairing, or diagnostic purposes if idling is required for such activity.
- (5) a vehicle idles as part of a state or federal inspection to verify that all equipment is in good working order, provided idling is required as part of the inspection.
- (6) idling of the primary propulsion engine is necessary to power work-related mechanical or electrical operations other than propulsion (e.g., mixing or processing cargo or straight truck refrigeration). This exemption does not apply when idling for cabin comfort or to operate non-essential on-board equipment.
- (7) an armored vehicle idles when a person remains inside the vehicle to guard the contents, or while the vehicle is being loaded or unloaded.

(f) **CONDITIONAL EXEMPTIONS:** Subsection (d) does not apply for the period or periods where:

- (1) a passenger bus idles a maximum of 15 minutes in any 60 minute period to maintain passenger comfort while non-driver passengers are onboard. The exemption expires (x) years after implementing a state financial assistance program for idle reduction technologies or strategies.
- (2) an occupied vehicle with a sleeper berth compartment idles for purposes of air conditioning or heating during rest or sleep period, until (x) years after implementing a state financial assistance program for idle reduction technologies or strategies, whereupon this exemption expires.
- (3) an occupied vehicle idles for purposes of air conditioning or heating while waiting to load or unload, until (x) years after implementing a state financial assistance program for idle reduction technologies or strategies, whereupon this exemption expires.
- (4) a vehicle idles due to mechanical difficulties over which the driver has no control; PROVIDED that the vehicle owner submits the repair paperwork or product receipt (by mail; within (x) days) to the appropriate authority verifying that the mechanical problem has been fixed.

(g) AUXILIARY POWER UNITS: Operating an auxiliary power unit, generator set, or other mobile idle reduction technology as a means to heat, air condition, or provide electrical power as an alternative to idling the main engine is not an idling engine.

(1) operating an auxiliary power unit or generator set on all model year 2006 or older commercial diesel vehicles is permitted.

(2) *[reserved for sub-section on operating an auxiliary power unit or generator set on 2007 and subsequent model year commercial vehicles.]*

(h) PENALTIES: The owner and/or operator of a vehicle, and/or the owner of a load/unload location, that is in violation of this law is responsible for penalties as follows.

(1) First offense: warning ticket issued to vehicle driver and owner, and where applicable, the load/unload facility owner.

(2) Second and subsequent offenses: \$150 citation is issued to the vehicle driver; and/or, \$500 citation issued to the registered vehicle owner or load/unload location owner.

IV. FINANCIAL ASSISTANCE PROGRAMS

For virtually every trucking company, fuel is the second largest expense behind labor. Numerous technologies are currently available to help these companies reduce fuel consumption from idling; however one of the major barriers to their widespread adoption is a lack of investment capital. In order to increase compliance with state idle restriction laws, especially among small and medium-sized trucking companies, participants at EPA's workshops generally agreed that states should consider developing financial assistance programs aimed at providing capital to trucking companies for the purchase of idle reduction technologies. Opportunities for financial assistance programs include loan programs, performance contracting arrangements, and grants as listed below.

Loan Programs

- States could offer grants or loans with terms that are more attractive than currently available commercial loans (e.g., low-interest rates, flexible repayment terms). Some states have existing grant or loan programs through their small business or environmental offices that may be able to support idle reduction technologies, including:
 - Currently, at least two states, Arkansas and Minnesota, offer loans to small businesses for idle reduction technologies (AR: <http://www.adeq.state.ar.us/poa/businessasst.htm> and MN: http://www.pca.state.mn.us/programs/sbomb_loan.html).

- Another state, Oregon's Lane Regional Air Pollution Authority (LRAPA), provides low-cost lease-to-own or no-interest arrangements on auxiliary power units for truckers (<http://www.lrapa.org>).
- The State of Wisconsin recently created a grant program for diesel truck idling reduction units. This program is administered by the Wisconsin Department of Commerce and provides grants to freight motor carrier's newer truck tractors. The program is designed to award \$1 million per year in grants for five years (<http://www/legis.state.wi.us/> (click on "Wisconsin Law"))).
- The State of California provides funds to support the incremental cost of cleaner diesel engines and equipment. Eligible projects include the installation costs for auxiliary power units (<http://www.arb.ca.gov/msprog/moyer/moyer.htm>).
- California Assembly Bill 1901 would establish a program, until January 1, 2012, in the State Energy Resources Conservation and Development Commission, to help finance, through direct loans, the retrofitting of trucks of large and small businesses with EPA SmartWay Upgrade Kits (includes idle reduction technology) that would be required to have specified emission control devices and may have other specified equipment. The Bill has been passed by Assembly Committee on Transportation and by the Assembly Committee on Jobs, Economic Development and the Economy. The Bill is currently with the Committee on Appropriations (http://www.aroundthecapitol.com/Bills/AB_1901).
- The State of Pennsylvania provides up to 50% matching grants, to a maximum of \$7,500, to enable small Pennsylvania businesses to adopt or acquire energy efficient or pollution prevention equipment (<http://www.dep.state.pa.us/dep/deputate/pollprev/Ombudsman/Advantage/ADVANTAGE.htm>).
- The State of Washington Legislature recently passed a bill that would provide a tax credit from the retail sale, lease, or rental of auxiliary power to heavy-duty diesel vehicles through onboard auxiliary systems or stand along electrification systems (<http://apps.leg.wa.gov/billinfo/summary.aspx?bill=6512#documents>).

Performance Contracting Arrangements

- States or private institutions could consider setting up programs in which they provide idle reduction equipment to trucking companies with no up-front cost to the company. The company would then pay for the equipment by returning a portion of its savings from reduced fuel consumption to the state or private entity each month. This type of arrangement would eliminate the problem caused by lack of access to investment capital that is a problem for many small- and medium-sized trucking companies. EPA's SmartWay Transport Partnership is currently studying this type of program.

Department of Transportation Programs

- Congestion Mitigation and Air Quality (CMAQ) Improvement program provides funds to state Department of Transportations, metropolitan planning organizations, and transit agencies to invest in projects that reduce regulated criteria air pollutants from transportation-related sources. This program has funded several idle-reduction projects throughout the country and there are several applications pending for future CMAQ-funded idle-reduction projects (<http://www.fhwa.dot.gov/environment/cmaqpgs/index.htm>).
- Section 129 Loans allows states to use regular federal-aid highway apportionments to fund loans for projects with dedicated revenue streams (<http://www.fhwa.dot.gov/innovativefinance/>).
- State Infrastructure Banks provides revolving infrastructure investment funds for surface transportation projects that are established and administered by states (<http://www.fhwa.dot.gov/innovativefinance/sib.htm>).
- Transportation Infrastructure Finance and Innovation Act allows DOT to provide direct credit assistance to sponsors of major transportation projects (<http://tiffa.fhwa.dot.gov/>).