

# Ten Point Program for Reducing Diesel Emissions

as presented  
by the Colorado Motor Carriers Association

## 1) Create an Incentive-oriented Program to Retire Pre-1990 Trucks

Diesel engines have a very long life span. These engines operate well past the potential life span of gasoline based engines. Because of this fact, many older diesel-powered trucks are still operating on our highways and roads today. Unfortunately, many of these older trucks, pre-1990, even when they are performing optimally, emit at least 60 times the amount of emissions versus a 2007 truck tractor. With 10% to 15% of the overall truck fleet mix being 1990 or older, it is estimated that 50% or greater of the on-road emissions contributed by large trucks are generated by these vehicles. This situation is further worsened by the fact that most of these pre-1990 vehicles are used for short hauls, usually within a 100 mile radius with many of these vehicles concentrated in the Denver Metropolitan Area. Unfortunately, many of the individuals or companies, owning these pre-1990 vehicles, do not possess the means nor is there any incentive to trade these vehicles for newer, cleaner burning vehicles

By creating an incentive-oriented program for owners of pre-1990 trucks to trade them for a 2002 or newer truck, we could greatly reduce diesel emissions. A 2002 truck, while not as clean as a 2007 unit, would provide a 50% or greater reduction in emissions than a pre-1990, yet be more affordable to the older truck owners. The incentive could take the form of a grant of several thousand dollars toward the purchase of the newer vehicle or a low interest or guaranteed loan by the State. To ensure that the pre-1990 vehicles were not placed into service again, the trade-in would be done through authorized dealers who would be charged with scrapping these vehicles or moving them outside of Colorado.

## 2) Active Support and Participation by the State in the EPA SmartWay Program

The EPA SmartWay Transport Program is a voluntary partnership between various freight industry sectors and EPA that establishes incentives for fuel efficiency improvements and greenhouse gas emissions reductions. By 2012, this initiative aims to reduce between 33 - 66 million metric tons of carbon dioxide (CO<sub>2</sub>) emissions and up to 200,000 tons of nitrogen oxide (NO<sub>x</sub>) emissions per year. At the same time, the initiative will result in an annual fuel savings of up to 150 million barrels.

To date a number of major fleets and shippers throughout the country have signed on and are participating in this program. The Colorado Motor Carriers Association is a SmartWay Partner with a number of its member fleets participating in the program along with a limited number of shippers. While participation has grown in the program, there is tremendous potential for more fleets and shippers to become part of this important effort.

Toward getting greater involvement and reaping the benefits from these efforts, state government should take the lead by embracing the use of SmartWay concepts for its own fleet of vehicles. The implementation of these simple, and in many cases low-cost, concepts would translate into tremendous reductions in fuel use and emissions. The State's active

involvement and support can also set the stage for many in the private sector to come on board and be part of this effort. The promotion of SmartWay by the Governor and others in State and local governments could be the stimulus to encourage a number of additional transporters, shippers and businesses would be willing to participate and become part of the program. As part of this effort we also believe that the State could seek to leverage federal funds to further generate participation in the program and its initiatives. Finally, it would be very beneficial if the Governor created a recognition program for fleets that become part of SmartWay and show the greatest emission reductions.

**3) Provide Incentives for Cleaner Burning Vehicles**

The cost associated with the newer, cleaner burning trucks (2007 and newer) is substantially higher than prior models due to the costs associated with environmental improvements. Unfortunately, this increased cost has made it more difficult for truck owners to purchase these vehicles which has translated into a major drop in 2007 truck sales. If the State could provide some form of tax incentives (sales tax exemption or tax credits) to offset some of the higher costs associated with these vehicles, it would make the units more affordable and provide a greater inducement for acquisition of these exceptionally clean-burning vehicles.

**4) Provide Incentives for Acquisition of Emission and Fuel Reduction Technologies**

Currently there are a number of strategies that may produce reductions in overall fuel use as well as emission reductions. These strategies include auxiliary power units (allowing the driver to shut down the truck versus idling), certain aerodynamic additions to tractors and trailers, the use of single-wide tires, and others. Unfortunately, many of these strategies are expensive and out of the reach of many truck owners. In Oregon and California, the State has offered low interest or no interest loans to truck owners for the acquisition of this equipment while in Wisconsin the state has created a grant program for the acquisition of idle reduction equipment such as auxiliary power units. We would encourage the State to pursue a similar approach in Colorado.

**5) Utilize Public-private Partnerships to Help Promote and Develop Truckstop Electrification Projects**

Reducing the idling of trucks at truckstops offers tremendous potential for emission reductions and fuel savings. Truckdrivers idle their trucks at these sites as a means to stay warm or cool while they are taking their mandatory rest periods from driving. A new program, known as truckstop electrification, provides electrical powered units that may be used at the truckstops to heat or cool the truck cabs which allows the truck to be shut down versus idling. Currently, one truckstop in Colorado in Commerce City has a limited number of these units, produced by IdleAire. Other communities in the country have used federal and state funds (i.e. CMAQ funds) as part of a public-private partnership with IdleAire to accelerate the addition of these facilities at truckstops. We believe that the State should consider a similar public-private effort in Colorado.

**6) Provide Outreach Effort to Improve Efficiency of Smaller Fleets**

Much of the oldest equipment resides with smaller companies. In many cases the companies may not possess the knowledge or expertise to develop an effective preventive maintenance program which helps to improve the efficiency of their vehicles and reduces overall emissions. One strategy to address this problem would be an effective outreach program whereby the State could offer support or assistance to smaller operators in the development of proper preventive maintenance programs as well as training equipment operators in anti-idling practices.

**7) Reduce the Amount of the Fuel Tax Exemption for Off-road Use that is Not Ultra Low Sulfur Diesel**

Any fuel that is used for off-road purposes relating to construction, oil development, agriculture, or other uses qualifies for a full tax exemption or refund from the state for the mileage that occurs on the non-public highway system. Overall we exempt or provide refunds for approximately 95 million gallons within the state today. In many cases the fuel used for the off-road purposes is of a lower grade than the ultra-low sulfur diesel fuel that is now required for on-highway purposes. While ultra-low sulfur diesel must have a sulfur content below 15 ppm, low grade diesel that may be used for off-road purposes may have a sulfur content up to 500 ppm. While the work activity may occur off-road, it is very likely that the project may be in an urbanized area which may be most sensitive to off-road diesel. One method to encourage a shift to cleaner diesel would be to reduce the tax exemption on off-road fuels by 50% for the use of a very low grade diesel and a 25% reduction for those using #2 diesel in these operations. Those individuals or companies using ultra-low sulfur fuel would be eligible for the full tax exemption.

**8) Require Use of Ultra-low Sulfur Fuel by All Diesel Vehicles that Work on Public Projects**

While all diesel sold for on-road highway use is ultra-low sulfur, vehicles on off-road public projects are not required to meet this same standard. In many cases these vehicles may use a low grade diesel fuel, commonly known as railroad diesel, which is cheap but is very high in sulfur and in turn generates greater emissions. While some use the very low grade diesel, others use #2 diesel which is cleaner than "railroad diesel" but still falls significantly below the standard for ultra-low sulfur diesel. Realizing that most public construction projects are occurring in urbanized areas, this requirement would significantly reduce emissions from diesel sources and improve air quality in those areas. The State should consider requiring the use of ultra-low sulfur diesel by vehicles working on all public projects whether the vehicles are used on-road or off-road. This will push the cost slightly higher for public construction projects but the benefit to the area and state's air quality should outweigh this cost. Along with this requirement on State projects, all off-road State vehicles should be required to use ultra-low sulfur fuel.

**9) Develop More Targeted Effort for Emission Compliance**

The Colorado Department of Public Health and Environment currently performs terminal audits at various carriers. For the most part these audits are the result of complaints or appear to be part of an overall cycle for inspecting various carriers. A better approach may be a more targeted effort which focused on fleets with older vehicles as well as those fleets who have a poor history for vehicle maintenance (as may be represented by a high out-of-service percentage for their vehicles based on their safety inspection record). Focusing on those fleets with older equipment as well as those with poor maintenance practices would be a more efficient and effective manner to identify gross emitters.

**10) Provide Incentives for Retrofitting of Older On and Off-road Equipment to Reduce Emissions**

Retrofitting of older equipment offers another solution to reducing diesel emission. Diesel particulate filters can significantly lower emissions and may be particularly applicable to older, expensive off-road equipment which has a long lifespan.