



Owner-Operator's Business
Association of Canada
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...from the
director's chair

Greenhouse Gas Phase 2: Why?

I'm an avid reader, but this tome just about did me in. I'm talking about the 1,329-page notice of proposed rulemaking called, Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles – Phase 2, from the US Environmental Protection Agency (EPA) and the US National Highway Traffic Safety Administration (NHTSA).

No, I haven't read every page, but I've scrutinized enough of it, and read tons of press reports, to have a good handle on what's coming our way.

The regulation, as laid out in the proposal, will apply increasingly stringent fuel efficiency standards to trucks and engines beginning in model year 2021 and flowing through to 2024 and 2027. Proposed changes to trailers will kick in for MY 2018 and will also become stiffer through 2027.

Environment Canada and Transport Canada will be developing a similar rule, and some fear it will mirror the US rule, requiring improvements of a similar magnitude to Canadian domiciled trucks. We can but hope at this point that our regulators take into account the profound differences in Canadian highways, as well as the difference in the trucks we use here, and also the climate in which we operate, with sub-zero temperatures and snow three to four months of the year in some places.

In any case, we can expect major changes to trucks over the next 12 years. Probably for the good, I'm willing to concede, as cleaning up our environmental footprint cannot be considered a negative.

I'm fearful, however, that impatient regulators will demand more of the truck and engine makers' engineering and testing and validation teams than they are capable of. It could be like EPA07 all over again, though I posit that 2007's technical failings would pale in comparison to what could go wrong with some of the advanced systems already under consideration to meet the 2027 targets.

Remember what happened when the EPA decided the industry was going to have diesel particulate filters on trucks by 2007? I know many owner/operators that were nearly driven out of business by costly and frequent repairs to the

DPF and EGR systems.

That technology was foisted on trucking before it was ready, and truck owners paid the price, big-time. Had engineers a few more years to work the bugs out of the transition from traditional exhaust systems to EGR and particulate filters, no doubt it would have gone much more smoothly.

EGR valves and diesel particulate filters are infinitely less complex than an "organic Rankine cycle diesel engine waste heat recovery system." Huh? If they couldn't get even relatively simple technology road-ready in time, how can we expect the engineers to pull this kind of miracle out of their hats?

In fact, in several reviews of the SuperTruck projects from both Cummins/Peterbilt and Daimler Trucks, engineers from both companies said some of the technology they used to achieve their ground-breaking test results, in particular the waste heat recovery systems used by both teams and the electric hybrid system used by Daimler alone, was "not yet commercially viable."

When the engineers involved in such a project say publicly that a technology is not ready for prime time we should probably take them seriously. The problem is, once the scientists tell us the technology can work, interest groups and government officials jump on the bandwagon and push to make sure all the bells and whistles get under our hoods pronto, ready for market or not.

What's more worrisome, with the Phase 2 standard officially just a proposal, not yet a full regulation, some keeners are already talking about moving the rules forward to take full effect in 2024 rather than 2027. Gimme a break.

There's more coming our way with this GHG reduction proposal that we have ever had to contend with before, some of it so advanced it's barely off the drawing board.

Some called-for improvements, like new aerodynamic requirements for van and reefer trailers seem, on the surface, fairly benign. The trailer portion of the rule will start kicking in by 2018, which in model-year terms, is just two years from now, although trailer makers are saying the mandated improvements can be easily met with



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existing SmartWay technology such as side skirts and trailer tails.

The rule, if nothing changes following the comment period, will also require automatic tire inflation systems and ultra-low rolling resistance tires that are 25% more efficient than a 2010 baseline tire. A tire with such low rolling resistance just has to have some compromise, and I hope for the sake of all Canadian drivers operating anywhere it's snowy, that they don't throw traction under the bus in favour of fuel efficiency.

Trailer efficiency improvements, like the rest of the rule, will become increasingly stringent through to 2024, leading us perhaps to teardrop-shaped trailers like those now in use in England.

In terms of costs and benefits, the EPA estimates that the Phase 2 rule will cost industry about \$25 billion while returning about \$230 billion in net benefits, including a return on investment to truckers in 24 to 30 months on a tractor that's expected to cost about \$12,000 more than one does today.

I'm not so worried about the upfront cost or the projected ROI, but about the cost of keeping the darn things running. The costs associated with the EPA 2007-2010 rules were staggering. Unfortunately, the costs I'm talking about don't make it onto the official balance sheets; it's the cost of downtime, the off-warranty repairs, the diminished trade-in values, and the aggravation and frustration of trying to run a business with a truck that won't stay moving.

The scariest part of these regulations is that they are completely unnecessary, and will prove to be prohibitively expensive. Fuel efficiency is something every carrier, every owner/operator and every truck maker is striving for. Left alone, this industry is innovative enough to get where the regulators are pushing us, but without needless pressure, and certainly without the penalties. What don't they understand about not commercially viable?