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**Proposed Regulations Amending the Motor Vehicle Safety Regulations (Low
Speed Vehicles) - As published in the Canada Gazette
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A response by

Electric Mobility Canada/Mobilité électrique Canada

The Mission of Electric Mobility Canada is to establish electric mobility, in all its forms, as the primary solution to Canada's growing transportation energy issues and to assist its members in the fulfillment of their mandates.

Summary

The proposed regulations contained in the Canada Gazette include certain changes to the existing Motor Vehicle Safety Regulations that govern the intended use of Low Speed Electric Vehicles (LSV's) in Canadian jurisdictions. In summary the proposed changes are:

1. *Update the definition of the LSV to clarify the original reason for establishing the LSV class, which was to allow the use of such vehicles for short trips, such as shopping, social and recreational purposes, in limited planned and controlled environments.*
2. *Add a requirement for a slow-moving vehicle emblem to be permanently marked on LSV, in order to harmonize with provincial/territorial requirements. (i.e. the triangle sign for slow moving vehicles).*
3. *Allow small trucks to be classified as LSV and includes a maximum limit for their mass.*
4. *A revision to state that a LSV does not use fuel as an on-board source of energy.*

Electric Mobility opposes #1, and #2, supports #3 and has no objection to #4. The rationale raised by the regulators for change #1 is centred on potential safety issues. Reality is that LSV's now operate without any documented accident experience.

We find the wording proposed for #1 to be not explicit and vague. We believe that such wording will confuse the provinces who ultimately decide which vehicles operate where. If Transport Canada believes in its statement that it is up to provincial and territorial governments to allow or not allow LSV's, then it should not propose regulations with text that discourages LSV's and make it unclear as to where they can be used. The proposed wording will be discouraging to provinces looking to improve environmental conditions by allowing LSV's.

From an environmental point of view alone, the world cannot accept that the burgeoning middle classes in large countries such as India and China will acquire cars of the size and weight found in more developed nations. Experts say that even accommodating their transportation needs with internal combustion engine microcars will lead to major emission problems. And, these problems would be exacerbated if they move to acquire larger cars as used in Western societies. Canada can lead the way by allowing small Low Speed Electric Vehicles on our low speed urban streets. Our rationales for these views are outlined below.

1. **General arguments in favour of electric LSV's**
 - Canada is uniquely well positioned to promote all forms of electric drive transportation. Compared to a global average of 20%, we in Canada generate over two thirds of our electricity from renewable sources such as hydro and wind. Some provinces generate nearly all their electricity from such renewable sources. Using this energy for transportation is wise and necessary.
 - As in other nations, our transportation system is almost exclusively propelled by petroleum products and the resulting emissions from transportation sources continue to increase as more vehicle kilometres are recorded. Our geography is such that we are unusually dependent on transportation for our daily activities and many transportation modes are not easily weaned from petroleum products.

- As petroleum becomes scarcer, it is critical that we promote electric drive transportation wherever it can be done and not curtail such transportation.
- Canada recently adopted regulations permitting the creation of emission standards for vehicles and introducing as many electric vehicles as possible in the mix would improve the probability of meeting whatever standards are set.
 - As the only G8 country which produces two-thirds of its electricity from renewable resources, Canada can take a lead role in accepting electric vehicles as an important solution to pressing environmental issues. Taking such a lead role can begin by finding a way to accept small electric cars in urban environments rather than discouraging them.
 - Experts are seriously concerned about the rapidly increasing demand for private vehicles in burgeoning economies such as China and India, These same experts agree that even if this increasing demand for vehicles was met with internal combustion engine microcars, the resulting emissions would be unmanageable. We have an opportunity to grow an industry of electrically powered micro cars that could show the world how to manage a growing part of the environmental threats from the transportation sector. Allow LSV's on low speed urban streets, where the risks are minimal, would be an important leadership step for Canada to take. Banning them indicates we do not care about global environmental issues.
 - LSV's can serve an important niche market serving low speed urban trips where vehicles with new design characteristics are necessary. As detailed in this document, there are no data supporting the view that LSV's occupants are placed at an unusual risk when operating their LSV's in mixed traffic.
 - Maximum speeds are easily controlled on electric vehicles.
 - LSV's produce no pollutants at the point of use.
 - LSV's are quiet.
 - If LSV's can be operated in controlled environments such as campuses, military bases and gated communities, where they will encounter larger vehicles, then they can equally be allowed to operate on low speed urban streets.
 - The Government of Canada has to take a holistic view of its motor vehicle safety regulations and consider not only potential injuries and deaths from traffic accidents but also from pollution caused by automobiles. Low or zero emission vehicles that do not meet full safety standards should be encouraged, especially when they have been shown not to contribute to increases in personal injury or death. A broader approach to 'risk management' is encouraged in this regard.

2. Proposed Change #1 – only allowing LSV's in controlled environments

Electric Mobility Canada opposes this proposed amendment as it would severely restrict the application for LSV's and, in our view; there is no justification for such a measure at this time.

2.1 Current Situation in the USA

As of May 2007, 43 US States as well as the District of Columbia allow LSV's to be used on roads not exceeding 40 km/h (25 mph). Thirteen states require LSV's to be electric.

Two states – Washington and Montana allow LSV's to travel at speeds up to 35 mph (55 km/h).

Our information indicates that LSV's are not always restricted to 'gated communities' or such locales in the USA at this time, and are used widely throughout the USA in mixed traffic and low speed environments.

2.2 *Current situation in Canada*

To date, only two provincial jurisdictions have adopted regulations permitting the limited use of LSV's in their jurisdiction.

2.2.1 *British Columbia*

British Columbia is the only Canadian jurisdiction that allows LSV's on public roads. This was announced in September 2000 by Circular #15/00 from the Insurance Bureau of British Columbia (ICBC) the provincial agency responsible for vehicle registration. In addition to meeting the Federal safety requirements imposed by Transport Canada, ICBC requires that all LSV's also meet provincial safety standards applicable to all motor vehicles, as prescribed under the Motor Vehicle Act Regulations, such as the ability to meet prescribed stopping distances, and mandatory equipment requirements (i.e. windshield wipers, bumpers, horn, etc.) Additionally, LSV's must comply with existing slow-moving vehicle requirements as prescribed by the Motor Vehicle Act and Regulations and certain restrictions under the Highway act Regulations. This means having to display a Slow Moving Vehicle Warning sign and a flashing light. LSV's are also prohibited from Schedule 1 Highways and major bridges and tunnels (which restricts their utility in the Vancouver Region). In November 2007, the Province announced its intention to allow LSV's without flashing lights and Slow Moving Signs in certain restricted areas. Details are being worked out with municipal and other partners.

2.2.2 *Ontario*

Ontario is the other Canadian jurisdiction which allows the use of LSV's but on a limited pilot project basis. Ontario adopted regulation 499/06 titled Pilot Project - Low Speed Vehicles:

- The pilot ends on September 19, 2011
- Allows LSV in public parks for vehicles that meet the requirements of low Speed Vehicles as defined in the Motor Vehicle Safety Act (Canada).
- Only to be used by employees of parks or Ministry of Natural Resources.
- Driver must have a valid Drivers' licence.

2.2.3 *Current Canadian Industry affected by the proposed amendment*

There are currently four Canadian companies manufacturing LSV's for sale in Canada and/or the USA. These are:

- ZENN Motor Company which imports an un-powered glider vehicle from France and installs the electric drive system in their plant in Quebec.
- DYNASTY which manufactures LSV's from their plant in BC.
- CANADIAN ELECTRIC VEHICLES LTD from BC that produces a LSV truck.
- NEMO which manufactures a LSV truck from a plant in Quebec.

This regulatory amendment proposed by Transport Canada would seriously curtail the potential sales of LSV's by these companies.

2.1.4 Current accident experience

- There is no evidence in either the USA or in Canada that LSV's have been involved in a disproportional rate of roadway accidents nor is there evidence that injuries or fatalities have been unusual. In fact, the occupants of LSV's have far more protection from collisions than occupants of motorcycles and scooters and studies have shown that they are safer¹.
- The 20+ LSV's registered in BC since 2000 have not been involved in any reported accident.
- Global Electric Motorcars, a division of DaimlerChrysler, which has sold over 30,000 LSV's in the United States, has not reported a single traffic-related death in their vehicles in over 10 years of service in mixed use and controlled environments. If Transport Canada has evidence to the contrary, we would be pleased to receive it.
- Similar vehicles in Europe now exceed 300,000 and about 30,000 are added each year². Public accident reports in France show that they are safer in terms of injuries than public transport³.
- Extensive safety statistics for Quadricycle usage in the EU exists and clearly shows that Quadricycles are the safest type of vehicle operating on roads in the EU in terms of accidents per million vehicles registered. Further, it is important to note that Quadricycles in the EU typically operate at much higher speeds than LSVs in North America. *(Please note that the Ministère des transports – Québec just commissioned a study of accident data of LSV's in developed countries. This study will be completed by the end of January 2008 and should be consulted before acting on this proposed regulation changes.*
- Regulatory agencies have expressed the concern that if not restricted to special operating environments such as gated communities, LSV operators might venture into higher speed traffic and place themselves at risk of serious injury. One answer to this would be to issue special licence plates to LSV's so that their travel on authorized higher speed roads would be identified easier by enforcement agencies.

2.1.5 Environmental benefits of LSV's

LSV's operating in urban and neighbourhood settings in California⁴ accounted for:

- 7.98 million cold starts eliminated per year (cold starts represent the worst operation of an internal combustion vehicle from a pollution/fuel waste perspective)
- 12.58 million zero-emission miles traveled per year.
- 26.46 million one-way zero-emission trips taken per year.
- 64.7% replacement of internal combustion engine vehicle trips with LSV trips.

¹ Green Car Institute "Study of NEV User Behaviour in California, July 2003.

² Michelin Article on LSV – April 2005

³ Taux de tués dans les véhicules par rapport au parc en 2005.

⁴ Green Car Institute "Study of NEV User Behaviour in California, July 2003.

2.1.5 *Conclusions reached by Electric Mobility Canada*

As an industry association, Electric Mobility Canada opposes the proposed amendment for the following reasons:

- The current view by Transport Canada that LSV's are only intended for use within retirement or other planned self-contained communities was not communicated in 2000 when CMVSS regulations were amended to allow for LSV's. **Adopting such an interpretation at this stage is a major policy shift.**
- Public pressure for serious reductions in all emissions, including those from transportation, as well as dealing with the oil depletion issue requires that green technologies such as LSV's be encouraged to grow and not be curtailed.
- The Government of Canada has just launched a Technology Road Map for Electric Mobility in Canada. It is expected that this Road Map will explore all possible avenues, to accelerate the introduction of clean electric drive transportation wherever possible in Canada and at the earliest possible time frame for environmental and industrial benefits. **For this reason alone, it would therefore seem prudent to cancel or delay the introduction of this proposed amendment.**

3. **Proposed Change #2 – Slow Moving Vehicle Emblem**

Instead of the Slow Moving Vehicle Emblem system, which is normally associated with farm tractors, EMC proposes that provincial governments issue a special licence plate for LSV's which would assist enforcement agencies in ensuring that these vehicles stay on low speed roads and would also alert other motorists that the vehicle is a Low Speed Vehicle.

The slow moving vehicle emblem might serve some purpose if the LSVs were allowed to travel on higher speed roadways, but seems unwarranted on a vehicle capable of 40kph and limited to use on roadways with speed limits of 60kph or less; there just isn't sufficient speed difference between the LSV speed and that of other traffic to warrant a slow moving emblem, especially since the LSV is fully equipped with all of the driving, head, brake and signal lights as any other car.

4. **Proposed Change #3 – Allowing small trucks as LSV's**

Electric Mobility Canada welcomes this change as electric vehicles can and are used extensively for the moving of both people and goods.

However, proposed amendment #1 will severely restrict the viability of these small trucks if they are not allowed in mixed traffic.

5. **Proposed Change #4 – Fuel not used as an on board energy source.**

Electric Mobility Canada welcomes this amendment as the industry is quite capable of manufacturing vehicles that operate solely on batteries and have no need of fuel as an on board energy source.

For further information, please contact:

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