Paper No. CB(2)1948/99-00(03)

For discussion on 12 May 2000

Legislative Council Panels on Environmental Affairs and Transport
Control of Idling Engines

Introduction

1. This paper discusses whether control of idling engines should be introduced and sets out some of the issues that we will need to consider if control is to be introduced.

Background

2. Many drivers in Hong Kong leave the engines of their vehicles idling while they are waiting. Other than those who do so for reasons that most members of the public would accept (for example, drivers of emergency vehicles who keep the engines of their vehicles running while stationary for operational reasons and drivers of goods vehicles with a built-in refrigerator carrying frozen food), most others leave their engines on to keep the air-conditioning running for the comfort of themselves and their passengers particularly during hot weather. It is open to debate as to whether the behaviour of the latter category of drivers should be restricted, as their comfort is at the expense of our air quality and the pedestrians on the streets.

3. We have not done any survey on the size this category of drivers. However, we believe that it will not be large in relative terms as a percentage of the overall number of vehicles on the streets. Nevertheless, it is a matter of fact that idling engines produce emissions while engines that have been switched off do not. It is also a fact that the complaints against idling engines received by the Environmental Protection Department rose from 67 in 1997 to 117 in 1998, and 239 in 1999.

4. The table at the Annex gives a comparison of the emissions by

an idling engine and an engine of a moving vehicle. While the emissions of, say, a diesel public light bus (PLB) with an idling engine are about half or less than half of those of a moving diesel PLB, the idling engine is still producing part of the pollutants that have made our air quality so poor. The same proposition applies to diesel buses, and is more convincing if we look at the figures for petrol private cars for which an idling engine is producing almost as much emissions as an engine of a moving vehicle in terms of carbon monoxide and hydrocarbon emissions.

5. The Environmental Protection Department (EPD) has been conducting a public education campaign since 1997 aimed at promoting the good habit of keeping the engine off while waiting. A number of community organisations have joined hands with Government to promote the practice through TV and radio publicity programmes, community functions and distribution of advisory materials to drivers. Other than these, EPD staff also take the campaign to the streets of the more polluted areas on days where the Air Pollution Index is very high to advise drivers of vehicles to switch their engines off while waiting. As a result of all these efforts, there is greater awareness of the nuisance caused by idling engines as can be shown by the sharp rise of complaints to EPD. As keeping the engines off while waiting is not a legal requirement at present, drivers do not have to accept the advice given by EPD staff.

Overseas experience

6. Control of idling engines in other overseas jurisdictions varies. In Birmingham, Bristol, Glasgow, Canterbury, Middlesborough, Swansea and Westminster in the United Kingdom, Singapore, Kyoto in Japan, and Toronto in Canada, idling engines are generally prohibited with exemptions granted to certain classes of vehicles depending on their genuine requirements. In New York City, a bus is not allowed to idle its engine when the temperature is higher than 40 degrees Fahrenheit.

Should control be introduced?

7. There is no disagreement in the community that all practicable and effective measures must be taken to improve our air quality. While the share of emissions from idling engines to our overall air quality problem may not be large in relative terms, anything we can do to reduce vehicle emissions will enhance our effort to bring clean air back to Hong Kong. As our present advisory approach is not achieving our objective, it is for consideration whether control by way of legislation should be introduced.

Issues to consider

8. If it is accepted that control should be introduced, some of the issues that we would need to consider are as follows:

9. Any type of control will inconvenience some drivers and passengers. For example, it will mean that PLB passengers and our tourists may have to endure the heat inside the vehicle compartment before the engine is turned on and the air-conditioning cools it down. It will mean that some drivers may have to endure the hot weather as well as the polluted air while waiting by the roadside. It will mean that drivers will have one more discipline imposed on them. But all these should be balanced against the wider public interest.

<u>Types of vehicles to be controlled</u>

10. It can be argued that only diesel vehicles should be brought into the control scheme, if one is to be established, as they are the most polluting. But petrol and LPG vehicles also contribute to air pollution, albeit to a less serious extent in relative terms.

11. We also have to consider which classes of vehicles should be exempted. Fire engines, other emergency vehicles and vehicles which have their engines idling for genuine operational needs would be the more obvious candidates. Other exemptions would have to be justified publicly. For example, should exemption be granted to the first PLB at a PLB stand so that the passengers who have boarded it can enjoy the air-

conditioning? Should the second one on the queue be given the same exemption in order to get ready to move up? Or should no exemption be given on grounds that the comfort of the few passengers would be at the expense of the pedestrians and our air quality?

Designate no-idling engine zones and hours?

12. It can be argued that any control should be applied only to areas where the air is most polluted and during those hours where the pedestrian flow is the busiest. However, if we accept the principle that vehicle emissions should be reduced to a minimum where possible and that zero emission is obviously better than some emissions for the overall benefit of Hong Kong, then this argument will fall away. Also, if we are to consider designating such zones and hours, we would need to consider the problems relating to enforcement. For example, how can drivers and enforcement agents identify these zones clearly? If different zones have different hours of restriction, will drivers be confused?

Setting a maximum time limit for the engine to idle?

13. It is for consideration whether an allowance should be given to drivers to leave the engine idling for a short while after stopping. In considering this suggestion, we should bear in mind that any time limit set is bound to give rise to arguments between the driver and the enforcement agent on how long the engine has been idling since the vehicle has stopped.

Penalty

14. We need to consider the type and level of penalty that should be imposed on offenders.

Advice Sought

15. Members of the Panels are invited to comment on whether control of idling engines should be introduced and, if so, the issues raised above and other issues that we should consider.

The Way Forward

16. The Administration will take into account Members' views and consult the public and the transport sector. We will present the findings of the consultation and our recommendation to the Council on the way forward in the next session.

Environment and Food Bureau
May 2000

Annex

Comparison of emissions

		Emissions in grammes per minute			
		Carbon Monoxide	Nitrogen Oxides	Hydrocarbon	Particulates
Private car (unleaded petrol)	Idle	4.0	0.2	0.31	Negligible
	Running	4.92	0.68	0.39	Negligible
Taxi (diesel)	Idle	0.3	0.5	0.06	0.044
	Running	0.42	0.64	0.15	0.22
Public Light Bus (diesel)	Idle	0.3	0.5	0.08	0.044
	Running	0.53	0.93	0.29	0.25
Bus (diesel)	Idle	2.0	2.0	0.21	0.042
	Running	3.73	4.92	0.98	0.58
Assumptions : Average speed assumed : 25 km/hr Effect of air conditioning included in the figures.					