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## Royal Commission Report on Diesel Emissions

The impact of diesel emissions on the environment and methods for their control have been studied by the Royal Commission on Environmental Pollution, of the United Kingdom. On 4th September 1991, they published their report entitled "Emissions from Heavy Duty Diesel Vehicles". The main recommendations to and conclusions for H.M. Government are:

Diesel vehicles are major contributors of atmospheric nitrogen oxides, which have adverse health effects and cause ozone formation, and of particulates which are probably carcinogens and which cause major soiling of buildings.

The Commission recommends that further reductions in both nitrogen oxides and particulates should be sought before the end of the decade. They also recommend that the European Community's steady state test cycle, during which emissions are measured against the standards set, should be made more demanding and along the lines of the U.S. Government's transient test cycle, and that financial incentives should be created to encourage the use of engines with lower emission levels and to speed the replacement of vehicles and engines with new, less polluting ones.

The report also recommends that, as a matter of urgency, H.M. Government should start trials of "traps" or flow-through catalysts to catch particulates, providing grants for retrofitting them to buses, if the trials are successful. Emissions should be lower in urban areas so tighter limits should be set for vehicles

operating in these areas, such as buses. The report suggests that this would require the fitting of particulate traps and flow-through catalysts. [These would probably be based on platinum group metals].

Incentives should be created to subsidise the costs of an early introduction and the use of low sulphur fuel (0.05 per cent), and Government should encourage bus operators to use alternative fuels such as petrol, liquified petroleum gas, compressed natural gas or electricity.

Usefully, the report encourages Government to study the implications of the production and use of such fuels upon emissions of carbon dioxide and other pollutants, balancing the widespread view that carbon dioxide emissions are the only gas from motor vehicles that have implications for global warming. The report recommends that the use of metallic fuel additives should be banned until the exhaust products have been checked with toxicological testing. If a trap or catalyst is fitted, it is the exhaust leaving the device which should be tested.

The report provides further encouragement to H.M. Government to support tougher emissions legislation for diesel engines. In Europe an increasing number of carmakers are offering diesel vehicles equipped with platinum group metal catalysts, which result in substantially cleaner emissions than the 1992 European regulations stipulate for carbon monoxide and hydrocarbons.

R.A.S.