

# Emission control essay



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The need to control the hydrocarbons, carbon monoxide and oxides of nitrogen that are emitted into the air from the tail pipes of vehicles has become important that's why emission control systems were developed.

The danger from these chemicals made the government officials to create the clean air act of 1977 which limits the amount of each pollutant that can be emitted. Additional pollution control devices have been made in response to this. The manufacturers call these feedback fuel control systems.

There are ways on how to control emissions. One, promote complete combustion. Second, introduce excessive hydrocarbons back into the engine for combustion. Third, additional area for oxidation or combustion must be provided. The techniques for emission control have to do with the emission control devices that are installed on the vehicle.

These are the following: catalytic converter, positive crankcase ventilation, exhaust gas recirculation valve, evaporative controls and air injection.

There's also calibration and software controls of the emission control hardware as powerful techniques used by manufacturers. All of these devices help in controlling the pollutants that the vehicle emits.

The emission control systems, on the other hand, are PCV system, intake system, evaporative control system and the automatic vehicle pollution monitoring system. These systems are designed to solve the emission problems of vehicles.

The most effective among these in reducing emissions from vehicles is the evaporative control system, which was designed primarily to reduce

hydrocarbons. This system works by trapping and storing evaporative emission coming from the gas tank and carburetor. To trap the fuel vapors, charcoal canister must be used.

This system also uses a sealed gas tank filler cap, which is very important in releasing fuel vapors into the atmosphere. To control vapor flow into the engine, a purge valve is then needed.

#### WORK CITED

Emission Control Systems. The Family Car Web Magazine. 1983-2005.