

SAE-890185

GM's Results – The EPA/Industry Cooperative Test Program

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International Congress and Exposition
Detroit, Michigan
February 27-March 3, 1989

ABSTRACT:

Approximately 245 passenger cars were involved in a Cooperative Test Program (CTP) conducted by EPA and industry. The purpose of this program was to examine ways of improving the effectiveness of I/M tests, specifically for the 1981 and later vehicles with closed loop fuel metering. Detroit area vehicles failing the Michigan Auto Exhaust Testing (AET) program were recruited and investigated to determine the cause of the failures. Complete FTP emission tests were run as received, and at each step of the repair sequences. A variety of I/M preconditioning methods were evaluated to understand false failures.

GM's portion of the CTP was sixty vehicles, half 1981-1982, and half 1983 and later model years. During the time period of the CTP, the AET failure rates were 14.5% for the 1981-1982 model years and 6.6% for the 1983 and later model years. Although all sixty vehicles had failed the Michigan AET, thirty three (55%) passed the "as-received" when tested in the GM laboratory. A variety of repairs were required on the balance of the vehicles. Cost-effectiveness of the emission related repairs ranged from \$8274/ton to \$9939/ton. Effective preconditioning remains an important requirement if tailpipe I/M tests are to be used.