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I/M Effectiveness with Today's Closed Loop Systems

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ABSTRACT:

Analysis of today's closed loop systems shows in-use emission levels – measured using the Federal Test Procedure are greatly reduced from those of vehicles produced in the mid '70's. The tailpipe concentration measurements (idle tests) used in I/M programs do not correlate well with in-use emissions from today's vehicles.

I/M tests are not very effective in identifying emission failures and are costly compared to other control strategies. Additionally, I/M programs which do not include adequate vehicle preconditioning increase the number of false failures and cause unnecessary expense. A majority of today's closed loop vehicles have on-board diagnostic systems to identify failures. Interrogating these on-board diagnostic systems, together with parameter inspections, offers a more effective alternative to current I/M programs.