HH-101

Concerning Refueling Emissions with Weathered Residual Fuel

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ABSTRACT:

On-going discussions with the regulatory agencies concerning evaporative emission test procedure modifications have raised several issues requiring clarification. One of the industry test modifications to the ORVR test proposes replacing the second fuel drain and fill with a different approach, and eliminating the third drain and fill. The problem with the third drain and fill is that it requires disconnecting the refueling canister to prevent inadvertent loading of the canister. A common assumption is that the canister and it's plumbing will be difficult to access on the new designs, and vehicle modifications may be required to perform the test. The industry proposal results in the refueling measurement being made with the residual fuel in the tank (10%) having lower volatility, i.e., "weathered". The purpose of this report is to document that this revision produces higher refueling emissions, and does not reduce the stringency of the test.