EPAct/V2/E-89: Assessing the Effect of Five Gasoline Properties on Exhaust Emissions from Light-Duty Vehicles Certified to Tier 2 Standards

Final Report on Program Design and Data Collection

Appendix G
Fuel Sampling Procedure for Carryover Experiments

Assessment and Standards Division
Office of Transportation and Air Quality
U.S. Environmental Protection Agency

National Renewable Energy Laboratory
U.S. Department of Energy

Coordinating Research Council

NOTICE

This technical report does not necessarily represent final EPA decisions or positions. It is intended to present technical analysis of issues using data that are currently available. The purpose in the release of such reports is to facilitate the exchange of technical information and to inform the public of technical developments.

EPA United States Environmental Protection Agency

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Procedure for Sampling and Handling of Gasoline Samples

1. Make sure that the fuel in drum, sampling equipment and sample container are at 50^{o}F max

    - It is strongly advisable that the sample container be cooled in an ice chest
    - Use a hand transfer pump
    - The glass sampling container must meet the following requirements:

        i. At least 1 qt. capacity
        ii. Amber colored.
        iii. Its cap must be equipped with a neoprene seal

2. Position the sampling tube to take the fuel sample from the mid level of whatever fuel quantity is left in the drum

    - It is recommended that a separate rigid tube of required length be used to sample fuel from a full drum and from a nearly empty (~ 15% full) drum

3. Using the hand transfer pump, activate the flow of fuel from the drum into a slop container and slop at least 1 qt. of fuel

4. Fill the sample container to 75-80% of capacity and seal tightly to prevent sample losses

    - Make sure that during sampling the fuel flows gently (w/o splashing) into the sampling container. Use a filling tube that reaches to the bottom of the container

5. Store the sample at 0 to 1^{o}C in a cooling bath or a refrigerator prior to opening the sample container for RVP measurement

6. Have the sample analyzed as quickly as possible