

Development of a Transportable, 1065-Compliant Emissions Measurement System

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Problem Statement

- More stringent Emission standards from EPA (HDDEs, NO_x ₍₂₀₀₄₋₂₀₀₇₎ 2.5g/bhp-hr to 0.2g/bhp-hr, PM₍₁₉₉₈₋₂₀₀₇₎ 0.1g/bhp-hr to 0.01g/bhp-hr) require lower level emissions constituent quantification
- CFR1065 test procedures for HDDEs 2010 model year and late require laboratory upgrade

Objective

- Design and build a transportable low emissions measurement laboratory with dual primary dilution tunnels that is “CFR1065 compliant”
- Construct a mobile analytical facility capable of testing a wide variety of vehicle/engine power systems
- Establish measurement correlation with existing engine test cell facilities and chassis dynamometer laboratories
- Configurable as an on-road, laboratory-grade system in order to meet the demands of on-board/transportable emissions research and evaluation of Portable Emissions Measurement Systems (PEMS)

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