

Wireless Vehicle Inspection for Mobile Source Emissions Programs

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Abstract

Vehicle Emission Inspection Programs throughout North America have undergone many transitional phases since the Clean Air Act of 1970 set forth the first ambient air quality standards and limits on emissions from mobile sources.

This presentation will offer insight into the multiplicity of forces re-shaping our nations policies and strategies for control of mobile source air pollution and the emerging role of advanced data mining in monitoring on-road fleet activities.

Some of the influences affecting Vehicular Inspection Maintenance Programs (I/M) to be presented include:

- Dramatic changes in regulatory oversight of greenhouse gases with the latest proposed rulemaking that combines Corporate Average Fuel Economy (CAFE) with Greenhouse Gas (GHG) certification standards.

- Increasing stringency for criteria pollutants governed by the National Ambient Air Quality Standards (NAAQS) (40 CFR part 50)
- Widening disparity between emissions of the pre-1996 legacy fleet and On-board Diagnostic Equipped (OBD) vehicles
- Reconciling the high cost of I/M programs with diminishing returns from newer cleaner vehicles.
- Failure of traditional I/M to reconcile low rates of emission repair effectiveness and durability
- Development of new federal standards for remote continuous monitoring (wireless inspection) of vehicle emissions and performance parameters