

Fleet Emissions and Greenhouse Gas Management Qualifications



Capabilities

Regulatory responses to global climate change are creating incentives for companies to mitigate global climate change and assist and encourage the transition to a low carbon economy. Companies that operate fleets and generate or use large amounts of energy, or generate greenhouse gases (GHG), can benefit from these incentives and opportunities. MSE can assist your company in developing and implementing a sound strategy for GHG emission management. Building on our historical strength in air quality analysis and fleet environmental management, MSE offers the following services:

- Identifying Climate Change Drivers
- Strategy Development / Implementation
- Calculating GHG Emission Reductions
- Carbon Credit Trading Assistance
- GHG Baseline Surveys
- Stationary and Mobile Source Emission Calculations and Inventories
- Source Permitting

Key Projects

Greenhouse Gas Emission Management Services, Confidential Transportation Client, Southeastern US

- Completed the strategy, policy development, baseline assessment, environmental information system development, and development of the customer GHG portfolio management service
- Assisted major transportation company with integration of GHG reduction into a system-wide EMIS
- Prepared data collection and analysis strategy presentation, GHG policy input, management briefing, baseline assessment report, EMIS rollout to the regions and sites, a GHG reduction improvement plan, and a GHG portfolio management offering

Vehicle Emissions Air Quality Analysis, Washington D.C. Area Private School

- Performed air quality analysis for operation of a proposed parking garage at a Washington, D.C. school
- Required consideration of increased vehicular traffic on roadways (mobile sources) in the vicinity in addition to emissions from the parking garage (stationary source)
- Used MOBILE 6.2 to estimate vehicle emission factors, CAL3QHC to estimate ambient air concentrations associated with traffic at intersections, and SCREEN3 to predict the ambient air concentration associated with emissions from the parking garage
- Demonstrated that the operation of the proposed parking garage would not exceed applicable NAAQS for carbon monoxide

Emissions Estimates and Air Dispersion Modeling for Bus Parking Facility, Wood River High School; Hailey, ID

- Evaluated fleet emissions and potential air quality impacts related to the operation of a new bus parking and maintenance facility
- Estimated the maximum PM₁₀ emission rate using EPA emission factors for idling vehicles within the school bus fleet
- PM₁₀ and TAP ambient concentrations were modeled using the conservative EPA screening model SCREEN3
- Results indicated that the total predicted ambient air concentration of PM₁₀ were less than the NAAQS
- Ambient air concentrations of the five TAPs evaluated were less than the applicable state standards at the property boundary

International Energy Agency GHG Program, UK

- Analysis of areas of concern related to the environmental impact of CO₂ capture and storage
- Produced road map for future work on CO₂ capture and storage
- Global Warming Potentials calculated with and without capture
- Results showed that Natural Gas Combined Cycle plant with CO₂ capture could operate with only 6% of the GWP of a similar scale coal plant without controls

Other Selected Projects:

- GHG Emission Reduction Credits for Anaerobic Digestion of Animal Waste, Big Sky Dairy, Wendell, ID
- European Community (EC) JOULE 2 Program, UK



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