

STATEMENT OF WORK for an Interagency Agreement (IAG) Between the Environmental Protection Agency (EPA) and the Federal Highway Administration (FHWA)

PROJECT TITLE: Near Road Ambient Air Concentration Monitoring for Studying Concentrations of MSATs

BACKGROUND: The EPA and the FHWA will collaborate to assess the impacts of traffic emissions on near road air quality. This issue has been identified as a priority research area for both agencies. In addition, the FHWA has a legal settlement agreement with the Sierra Club (SC) to conduct research to characterize concentration levels in the ambient air adjacent to major highway facilities that are attributable to motor vehicle emissions of PM_{2.5} and the 6 priority mobile source air toxics: diesel particulate matter plus diesel exhaust organic gases; benzene; 1,3 butadiene; acetaldehyde; formaldehyde; and acrolein. Both agencies agree that a research program addressing the near road air quality issue, and specifically the settlement agreement requirements, would optimize the use of federal funds if conducted collaboratively. The research study will be conducted under the direct management of the EPA; however, FHWA has the sole responsibility in meeting the legal requirements of the settlement agreement. Implementation of this IAG and any such changes must conform to the FHWA settlement agreement, as determined by FHWA.

OBJECTIVE: The objective of this EPA-FHWA collaboration is to determine mobile source air toxics (MSAT) concentrations and variations in concentrations as a function of distance from the highway and to establish relationships between MSAT concentrations as related to highway traffic flows including traffic count, vehicle types and speeds; and meteorological conditions such as wind speed and wind direction. As such, the Near Road MSAT Project would be expected to provide data detailing concentrations and distributions of motor vehicle emitted pollutants including regulated gases, air toxics, and particulate matter. Specifically, the data will be used to address the following goals:

1. Identify the existence and extent of elevated air pollutants near roads.
2. Determine how vehicle operations and local meteorology influence near road air quality for regulated and air toxic pollutants.
3. Collect data that will be useful in evaluating and refining, if necessary, models used to determine the emissions and dispersion of motor vehicle related pollutants near roadways. Note that the model evaluation and development is **not** included under this Statement of Work.

To meet this objective, the research program will be conducted sequentially at two sites, with a possible third site to be studied, contingent upon the availability of funds and concurrence of appropriate State and local officials. The location and order of the three sites to be studied will be as follows:

1. Las Vegas, NV as part of the US95 settlement agreement
2. Detroit, MI

3. Raleigh, NC

FUNDING: Partial funding in the amount of \$1.7M will be provided by the FHWA (note: \$700K of the funding provided by FHWA will be from the State of Nevada per the settlement agreement). The EPA's Office of Research and Development (ORD) will provide \$1.3M in funding. The combined funding will be utilized by EPA to 1) acquire the services of one or more contractors to conduct the required field monitoring, analyze samples, and provide data and summary reports and 2) acquire the equipment necessary to complete the studies. In addition to funding, both agencies will provide in-kind support through the involvement of staff in various support activities such as project planning, project oversight and quality assurance. If there is a need for additional funding to complete three sites and funding is available from the FHWA, or another source, such as a participating state agency, this IAG may be amended to increase the total contributions towards this effort.

TASKS: The following tasks shall be completed. These tasks have been written assuming that up to three sites will be studied as part of the Near Road MSAT program. However, the number of sites studied will ultimately depend upon the actual cost per site and the available funding.

1. Develop Acquisition Package: The EPA shall develop the acquisition package including the statement of work (SOW) and Independent Government Cost Estimate (IGCE). This effort will be conducted in close collaboration with the FHWA. The FHWA protocol for implementing the US95 settlement agreement (dated June 5, 2006) shall be used as the foundation for the Near Road MSAT Program. Changes may be made to the work outlined in the protocol due to cost limitations, lessons learned from previous studies, or scientific recommendations made by EPA, FHWA or external experts, with consideration for the legal requirements of the FHWA settlement agreement. The final SOW for the contractor support is subject to the approval of both the EPA and the FHWA.

2. Acquisition of Contractor Support: The EPA shall acquire contractor support to implement the research program. It is anticipated that EPA shall utilize either an existing EPA contract or contractor support available through GSA. The EPA shall carefully consider as many options as possible and shall consult with FHWA regarding the options available. The option selected will focus on acquiring qualified contractor support at a fair and reasonable price. The EPA and the FHWA shall mutually agree on the option selected. The EPA will be responsible for processing the acquisition once the method is agreed upon. This will include, at a minimum, the development of the acquisition package, the processing of the competition (if applicable), the negotiation of the contractual agreement with the selected contractor(s), and the execution of the contract. The EPA will keep FHWA apprised of progress.

3. *Acquisition of Equipment:* It is the intent of EPA to provide to the selected contractor certain items of equipment that will be required to conduct the study. The EPA shall determine what equipment is needed and will either make that equipment available from existing inventories, acquire the equipment from commercial sources, or authorize the selected contractor to acquire equipment needed to complete the study. The EPA will keep FHWA apprised of progress.

4. *Conduct of Studies:* The EPA shall monitor the contractor's performance in conducting the studies at each site selected for the Near Road MSAT Program. Per the US95 settlement agreement, sampling at each site shall occur over a one year period. Additional time shall be required at each new site for site preparation, site demobilization (breakdown and moving of equipment), and preparation of a final report. The EPA shall be responsible for the review and acceptance of contractor deliverables. Copies of all contractor progress reports, draft and final reports shall be provided to the FHWA. The FHWA shall also have access to all data generated by the EPA contractor.

5. *Periodic Assessment and Project Management:* After completing the first 6 months of the study at the initial site, EPA and FHWA will meet to discuss the costs incurred to date and to determine if any modifications to the monitoring protocol used at the initial site are required to reduce costs without jeopardizing the study objectives. EPA and FHWA will meet again upon completion of the study at the initial site to evaluate the success and costs incurred and to identify areas of improvement for subsequent study sites. If funds are available for the third site (Raleigh, NC), EPA and FHWA will meet before initiation of that study to identify any additional adjustments to the monitoring protocol. Finally, EPA and FHWA will also meet, at a minimum on a monthly basis, to discuss study progress, difficulties, concerns or potential protocol implementation issues that may arise.

DELIVERABLES:

1. Progress Reports: EPA shall deliver to the FHWA copies of the contractor's monthly progress reports and a monthly summary of current and cumulative expenditures.

2. Final Report: For each site studied, the EPA shall prepare and deliver to the FHWA a final report that includes, 1) a summary of the study, 2) an analysis of the data and 3) any recommendations for improvements to subsequent studies. The final report for each site shall also include a summary of the costs incurred.

QUALITY ASSURANCE: The EPA Project Officer and other EPA technical representatives shall develop a Quality Assurance Project Plan (QAPP) as required by the needs of this study. This QAPP is a "living document" and as such may require modifications as required by the needs of this study. The contractor shall maintain and revise the QAPP as required by the needs of this study. The QAPP that results from this task will be included as an Appendix to the final report.

The contractor shall comply with all requirements as delineated on the "Quality Assurance Planning Requirements Form" and the NRMRL QA Requirements/Definitions

List included with this effort (Attachment C). The work to be performed falls under the QA requirements for “**Sampling and Analysis**” projects, Category II (See Attachment C for outline of requirements). See **EPA Requirements for Quality Assurance Project Plans**, EPA QA/R-5, EPA/240/B-01/003, March 2001, <http://www.epa.gov/quality/qs-docs/r5-final.pdf>. Additional guidance with regards to sampling and analysis QAPP requirements may be found in Chapter 2 of the Guidance for Quality Assurance Project Plans (QA/G-5), EPA /240/R-02/009, December 2002, <http://www.epa.gov/quality/qs-docs/g5-final.pdf>.

Work involving environmental data shall not commence until the quality assurance documentation has received official approval from the EPA Quality Assurance Staff.