



**REGION 2
UNIVERSITY TRANSPORTATION RESEARCH CENTER
RFP COVER SHEET**

Title: Mobile Source Air Toxics (MSATs) Mitigation Measures

RFP Number: C-08-12

Sponsor: NYSDOT

Date Issued: September 23, 2009

Final Proposal Due at UTRC: **November 18, 2009** (submit through the UTRC Online Submission System at www.utrc2.org)

REVISED RFP Closing Date: November 18, 2009

If you plan to apply:

Please contact Penny Eickemeyer at peickemeyer@utrc2.org (cc: ckamga@utrc2.org) to let us know you are assembling a proposal. We will make sure you receive any additional information that becomes available about this RFP.

Proposal submission guidelines:

Please submit your proposal electronically to UTRC. We will confirm that the proposals make comparable budget assumptions and will deliver the proposals to the sponsoring agency by the closing date.

Funding available:

Up to \$300,000 is available from NYSDOT. Facilities and Administrative Costs (or Indirect Costs) charged by academic institutions are included in the above amount. In addition, USDOT (UTRC) will provide up to \$35,000 in matching funds for requested funding above the NYSDOT budgeted amount.

Budget forms can be downloaded at

<http://www.utrc2.org/research/assets/budget-Template.xls>

For questions about this RFP, please contact:

Paul Hoole, Director

Research and Policy Studies Section, 6th Floor

New York State Department of Transportation

50 Wolf Road

Albany, NY 12232

For questions about budget preparation, please contact: Camille Kamga, ckamga@utrc2.org

New York State Department of Transportation
Request for Proposals
SPR # C-08-12: Mobile Source Air Toxics (MSATs) Mitigation Measures
September 23, 2009

RESEARCH PROBLEM STATEMENT

The analysis and mitigation of mobile source air toxics (MSATs) has become an area of concern for NYSDOT projects, and could adversely affect project implementation. In 2006, the Federal Highway Administration (FHWA) issued “*Interim Guidance on Air Toxic Analysis in NEPA Documents*,” which presents a national-level approach for analyzing MSATs in National Environmental Policy Act (NEPA) documents for transportation projects. The FHWA interim guidance also identifies several general strategies for mitigating MSAT effects (e.g., technological adjustments to construction equipment, anti-idling strategies). NYSDOT currently uses the FHWA interim guidance for analyzing MSAT impacts. However, to assist NYSDOT in making more informed transportation and environmental decisions and advance the Department’s environmental policy, NYSDOT is in need of MSAT analysis procedures and feasible mitigation strategies that are specific to the transportation system in New York State.

OBJECTIVES

The objectives of this project are to develop proposed procedures for qualitatively and quantitatively analyzing MSAT impacts in NYSDOT NEPA and State Environmental Quality Review Act (SEQRA) environmental documents and identify feasible MSAT mitigation measures for NYSDOT capital improvement projects and facilities. The NYSDOT MSAT analysis procedures will be based on the FHWA “*Interim Guidance on Air Toxic Analysis in NEPA Documents*,” but expanded to be specific to the analyses of transportation projects in New York State. The project will involve consultation with FHWA, US Environmental Protection Agency (USEPA), NYS Department of Environmental Conservation (NYSDEC), and NYS Department of Health (NYSDOH).

PROPOSED RESEARCH TASKS

Task descriptions are intended to provide a framework for conducting the research. NYSDOT is seeking the insights of proposers on how best to achieve the research objectives. Proposers are expected to describe research plans that can realistically be accomplished within the constraints of available funds and research period. Proposals must present the proposer’s current thinking in sufficient detail to demonstrate their understanding of the issues and the soundness of their approach to meeting the research objectives.

The tasks for this project will include the following:

- Investigate other State DOT practices for addressing MSATs in NEPA documents and mitigating MSAT impacts, and determine the applicability of these practices to New York State
- Assess the extent of available literature on MSAT health effects and analyses, and review the most appropriate publications, including the National Cooperative Highway Research Program (NCHRP) 25-25 Report “*Analyzing, Documenting, and Communicating the Impacts of Mobile Source Air Toxic Emissions in the NEPA Process*”
- Consult and coordinate with FHWA, USEPA, NYSDEC, and NYSDOH at

various stages throughout the project

- Discuss the feasibility and financial implications of potential MSAT mitigation measures with NYSDOT and other involved agency staff
- Use USEPA's new MOVES model with input data specific to New York State to generate MSAT emissions for a range of average annual daily traffic (AADT) levels and speeds
- Consult with USEPA regarding the accuracy of MSAT emissions estimates generated by MOVES
- Establish criteria for determining when a project warrants an MSAT analysis and the type of analysis required
- Develop procedures for performing qualitative and quantitative MSAT analyses
- Use MOVES to determine the MSAT emissions benefits associated with various mitigation measures
- Identify and assess existing MSAT monitoring data in New York State and relevant bordering areas

RESEARCH PRODUCTS

The products of this research project will include the following:

- Guidance document proposing procedures for qualitatively and quantitatively analyzing MSAT impacts in NYSDOT NEPA and SEQRA environmental documents. The guidance document will describe how and why the proposed procedures were chosen, and describe any methods that were considered but not recommended. The guidance will also include sample qualitative and quantitative analysis of hypothetical projects (at least one sample for each type of analysis).
- Report describing the MSAT mitigation measures that were considered and determined to be feasible or dismissed. This report will document the MSAT emissions benefits and financial implications of each measure under consideration. For those measures determined to be feasible, the report will describe the action steps that are necessary for implementation.
- Documentation of meetings, communications, and analyses that were performed for the project.

URGENCY / EXPECTED BENEFITS

As previously stated, the analysis and mitigation of MSATs has become an area of concern for NYSDOT projects, and could adversely affect project implementation. The development of NYSDOT-specific MSAT analysis procedures and mitigation measures is anticipated to benefit the Department by assisting NYSDOT in making more informed transportation and environmental decisions; advancing the Department's environmental policy; and promoting safe and environmentally-sound transportation services. It is also anticipated that the implementation of this project will clarify and streamline the MSAT analysis process, allowing reviewers such as FHWA and USEPA to have clear expectations of the type of MSAT information to be presented in a project environmental document and the scope of potential mitigation measures.

RESEARCH PERIOD

The research period will be approximately nine (9) to twelve (12) months, to be established during the project scoping process.

FUNDING

\$300,000 has been budgeted for this project, exclusive of administrative fees. New York State believes this is a reasonable estimate for the total cost of the work being requested.

The net cost to New York State is one of the selection criteria. When compared to competing proposals, a proposal that requires fewer New York State dollars will receive a higher score on the cost component of the selection criteria. The value of New York State funds required could be reduced through efficiencies (fewer hours per task and / or lower cost per hour) or through cost-sharing where other funds substitute for New York State funds.

Proposals with a New York State cost over the budgeted amount will also be considered, provided the New York State cost, exclusive of administrative fees, does not exceed the budget estimate by more than 10%. (Note: Cost-sharing funds may increase the total project cost further.)

If a sufficient number of potential Principal Investigators indicate in writing that they believe the research cannot be reasonably conducted within these funding constraints and there are only a limited number of proposals submitted within the funding constraints, New York State reserves the option of not proceeding with the work or revising the budget estimate and issuing a new Request for Proposals. Potential Principal Investigators who believe the budget estimate is unreasonable should write to:

Paul Hoole, Director
Research & Policy Studies Section, 6th Floor
New York State Department of Transportation
50 Wolf Road
Albany, NY 12232

SPECIAL NOTES

- **Proposals are due by close of business, Wednesday, November 4, 2009.** This Request for Proposals is being offered to the University Transportation Research Center (UTRC) members only. Members should submit proposals through the Administrator of this consortium. The receipt of an electronic PDF copy of the proposal by NYSDOT on or before the above due date is satisfactory, providing hard copies follow within a week.
- **Seven (7) hard copies** of the proposal should be provided.
- Proposals should indicate direct and indirect costs, hourly rates and hours by task, travel costs, and material costs to assist NYSDOT in understanding how the total cost for the work was estimated. The winning proposal will result in a fixed cost contract based on details provided.
- Please provide a Budget Chart which shows for each task the deliverable and cost. Task headings in the Budget Chart are to match the scope task headings.
- Please include a Gantt Chart, showing the duration (start to finish) for each task in terms of months (i.e. Month 1, Month 2, etc) since the actual start date is an estimate.

- If the proposal involves a joint venture or sub-consultants, it must be clear as to how tasks will be distributed or shared in the scope of work.
- The final report on the research will be expected to contain, at a minimum, the information described in Attachment A, *Requirements for the Final Report*.
- Please provide two (2) references who can attest to the experience and performance on past projects of the Principal Investigator.
- **The designated contacts for this solicitation are Paul Hoole and Deborah Mooney.** Questions seeking clarification on the RFP will be accepted up to three (3) weeks prior to the due date for proposals and should be e-mailed to: phoole@dot.state.ny.us **and** dmooney@dot.state.ny.us
- Principal Investigators should be familiar with and follow the requirements of New York State with regard to the *Compliance Procurement Lobbying Law* and consultant contract procurement. Information can be found on the NYSDOT website under Business Center / Doing Business with NYSDOT / Consultants / Non-Architectural Engineering Information / Active Solicitations: <https://www.nysdot.gov/main/business-center/consultants>

CRITERIA FOR SELECTION

- **Expertise / Understanding / Approach** (Weight: 65%)

Expertise and Educational Background: What is the extent of the relevant experience and educational background of the Principal Investigator? What is the extent of the relevant experience and educational background of others who will be involved in the research?

Understanding of the Problem: Does the proposal reflect an understanding of the problem and its relevance to New York State? Does the proposal reflect an understanding of existing data and the current state of knowledge in New York State?

Approach: Is the proposed approach clear, especially in how it will build upon and enhance the state of knowledge in New York State? Will it yield the deliverables called for in the RFP? Does the approach show insight that will lead to results that will sufficiently assist New York State in addressing the problem? Is the proposed approach practical given the schedule and total budget? Will the proposed research draw upon all critical sources of pertinent information?

- **Investigators Previous Experience with Similar Projects** (Weight: 15%)
Successful completion of previous projects by the Investigator(s) will be considered. These projects should be in the area of expertise required for successful completion of this project, such as air quality analyses, modeling, and policy development. The Investigator(s) should also show an understanding of hazardous air pollutants and MSATs, and the associated health effects.
- **Cost to New York State** (Weight 20%)
The lower the New York State cost, the greater consideration a proposal will receive.

Requirements for the Final Report

Copies of Final Report – Twenty (20) hard copies of a bound, final report shall be provided at the conclusion of the research study. An electronic PDF copy of the final report is required as well.

Required Organization for the Final Report

Title Page (front cover) - that contains:

- The research number (C#) assigned by the Research & Policy Studies Section of the Policy & Planning Division;
- The name of the research study as stated in the Task Assignment (contract);
- The words “Final Report;”
- The date (month & year) the final report is completed;
- The name(s) of the Consultant(s) / Principal Investigator(s), along with the name(s) of the organization(s) they represent and their address(es); and,
- If the final report has a security classification, it shall be noted on the title page.

Disclaimer (inside cover) - as follows:

DISCLAIMER

This report was funded in part through grant(s) from the Federal Highway Administration, United States Department of Transportation, under the State Planning and Research Program, Section 505 of Title 23, U.S. Code. The contents of this report do not necessarily reflect the official views or policy of the United States Department of Transportation, the Federal Highway Administration or the New York State Department of Transportation. This report does not constitute a standard, specification, regulation, product endorsement, or an endorsement of manufacturers.

Form DOT F 1700.7 – complete the standard form used throughout the country to summarize federally funded transportation research

Table of Contents

Executive Summary - a non-technical summary of the research and its findings

Introduction – a discussion of the problem, its background, and a concise history of research previously completed on the topic, and a discussion of what NYSDOT policies, procedures, and practices are currently in place related to the research topic.

Research Method – a description of the methods used in conducting the research

Findings and Conclusions – a discussion on the analysis of the data (findings) and the conclusions reached based on the findings. Suggestions for additional research, if appropriate, would appear in this section.

Statement on Implementation – a brief statement on what would need to occur to introduce the results into practice, and a discussion on possible technology transfer activities

Appendices – as appropriate