Request for Proposal

The National Association of Sewer Service Companies (NASSCO) is requesting proposals to evaluate the potential release of organic chemicals in the steam exhaust and other release points during pipe rehabilitation using the trenchless, Cured-In-Place Pipe (CIPP) method. Safety and health is of utmost importance, and also that standards are in place to protect contractors, construction workers, the public, and the environment. NASSCO commits to provide training, guidance, and set industry standards.

In Phase 1 of the study, NASSCO hereby requests an independent, third party review of recent publication(s) that propose the presence of organic chemicals and other available literature relating to emissions associated with the CIPP installation process, and a scope of services for additional sampling and analysis of emissions during the field installation of CIPP using the steam cure process. Phase 2 will be executed, under a separate contract, based on the work plan developed in Task B of Phase I.

- The Scope of Work for this project is divided into two tasks as defined below.
- Any subcontracted work shall be specified in the submitted proposal.
- Proposal shall be submitted as one electronic, PDF.
- All pages must be 8.5” x 11” in size.
- Proposal shall have a maximum of ten pages not including resumes and shall include the following items:
  - Introduction
  - Project Team – List of names working on project including institutions and/or companies of employment
  - Task A Proposal response including qualifications
  - Task B Proposal response
  - Schedule for completion of Task A and Task B including current availability, commitment to schedule, and examples of projects where deadlines have been met.
• Proposals shall be based on time and materials with a not-to-exceed cost per task and deliver proposals to mayank@nassco.org no later than Friday, October 27th, 2017.

• Basis of Contract Award - The proposals will be evaluated for content, completeness in meeting the requirements of the RFP, and the proposal which provides the best value for the price submitted, for each task.

• Questions may be directed to Mayank Khurana at mayank@nassco.org on or before Wednesday, October 25th, 2017.

PHASE 1- SCOPE OF WORK

Task A – CIPP Emissions Literature Review

Using general knowledge, data, articles, reports and other information currently available, prepare a literature review of documents regarding emissions from CIPP project sites regardless of installation technique. Specifically include a review of the following but not limited to:

Reference 1:  July 2017 report by Purdue University, Environmental Science and Technology publication titled, "Worksite Chemical Air Emissions and Worker Exposure during Sanitary Sewer and Stormwater Pipe Rehabilitation Using Cured-in-Place Pipe (CIPP).”

Reference 2:  2012 report by Caltrans titled, "Environmental Effects of Cured-in-Place Pipe Repairs”.


The drop box link for the above mentioned four references has been provided here.
https://www.dropbox.com/sh/7mh9snktg312zfh/AACMYsOffsijQNYhWfyKo9gCqa?dl=0
Depending upon the information available in the references, the literature review must address the following points.

- Test methods, equipment, and instrumentation used.
- Data Review including:
  - QA/QC
  - Does the data sample collected represent the whole population?
  - Reporting and detection limits
  - Employee sampling data from NASSCO companies
  - CIPP materials used (including resin systems)
- Reference review
  - Do references support consistent conclusions?
  - Peer review documentation of literature or study findings.
- Statistical analysis presented
  - What type of models have been used?
  - Were the models used representative, calibrated and validated?
- Verification of CIPP product definition.
- Review of the data with respect to environmental impact, toxicology and employee chemical exposure.
- Chemical exposure limits at different locations relative to steam exhaust discharge source.
- Determination of actual short term and long term health issues identified from odor complaints as verified by professional medical personnel
- Provide discussion on employee/public safety and health standards and regulations including OSHA, ACGIH, NIOSH, and other regulatory limits.
- Verification of test methods.

A list of references must be included in the literature review report.
Task A deliverables (to be submitted in pdf format):

1. Draft literature review report
2. Draft separate executive summary of literature review
3. Final literature review report
4. Final separate executive summary of literature review

Task B – Work Plan and Schedule for Phase 2 - Data Collection and Analysis

A work plan and schedule shall be developed to verify findings from the literature review as well as gain additional data where insufficient data was found in Task A. The work plan shall cover emissions from steam cure CIPP installation sites only, and shall be peer reviewed by professional environmental consultant qualified to perform the work prescribed. The deliverable will also include a cost estimate to complete Phase 2 - Data Collection and Analysis.

Prepare a data collection and analysis work plan to evaluate the following questions:

- In addition to styrene, are there other volatile organic compounds (VOCs) or contaminants of concern generated during the curing process? Data collected here should quantify the VOCs and determine if there is an exposure concern.
- Based on data collected, what is the estimated styrene emission per pound of resin cured?
- Do the data confirm or disagree with the findings discussed in the references listed on page 2?

Test locations should represent the following controls at minimum:

- Only unsaturated polyester resin shall be used (styrenated).
- Only AOC and Interplastic resins shall be used.
- Steam cure only.

NASSCO allows flexibility with this task, but expects these items to be included:

1. **Styrene and other VOC Concentrations within the CIPP Work Area**
   - Appropriate control/background samples must be collected.
• Emissions analysis including the steam exhaust and other sources such as emissions from the termination manhole.
• Condensate analysis
• Area air samples

2. Personnel Sampling

Personnel sampling to be conducted for styrene and other chemical exposure data. One round of comments from NASSCO will be provided.

Task B deliverables (to be submitted in pdf format):

1. Draft work plan for Phase 2 (Executive summary followed by a detailed plan)
2. Draft detailed cost estimate for Phase 2 work plan
3. Draft Phase 2 schedule
4. Final work plan for Phase 2 (Executive summary followed by a detailed plan)
5. Final detailed cost estimate for Phase 2 work plan
6. Final Phase 2 schedule

TENTATIVE SCHEDULE

• Last day for questions on RFP – Oct 25th 2017
• Proposals Due - Oct 27th 2017
• Contract Award Date/Project Start date – Dec 1st 2017
• Complete Phase 1 – March 1st 2018 (TBD)
• Advertise Phase 2 – April 1st 2018 (TBD)
• Phase 2 – RFP and award based on Task B (Proposed work plan)