# Mississippi State University Notice of Proposed Sole Source Purchase

# 234-79

Mississippi State University anticipates purchasing the item(s) listed below as a sole source purchase. Anyone objecting to this purchase shall follow the procedures outlined below.

## Commodity or commodities to be purchased (make, model, description):

Jing AG, MiniCAST model 5304C Soot Generator Type C for Propane

## Explanation of the need to be fulfilled by this item(s), how is it unique from all other options, and why it is the only one that can meet the specific needs of the department:

This item is needed for the controlled generation of soot to simulate smoke created during fire accident scenarios. This soot generator will be used to evaluate the performance of nuclear grade HEPA filter media under these accidental fire scenarios. There is a need to generate known quantities of well-characterized soot aerosols to challenge filter media and to challenge the filter within a reasonable amount of time. This soot generator can generate soot at particle concentrations of 108 particles per cubic centimeter, with a mass loading output of 1.5 g/hour, which is needed to effectively challenge the filters in an appropriate length of time.

In addition, there is a need to be able to control the particle size distribution of the challenge soot aerosol, which is critical for the testing in which this unit will be used. This unit controls aerosol mass concentrations and particle size distributions using built in high-precisions mass flow controllers. These are necessary for this work to enable fine-tuning particle size and ensuring stability within several nanometers. The mean particle size distribution should be approximately 100-200 nm, which this generator can easily maintain.

At the time of drafting this sole source letter, Jing LTD is the only manufacturer capable of maintaining the required particle concentration, particle size range, and flow rates required for testing.

## Name of company/individual selling the item and why that source is the only possible source that can provide the required item(s):

JING LTD, only manufacturer meeting soot generation and control requirements

## Estimated cost of item(s) and an explanation why the amount to be expended is considered reasonable:

$54,726 – This is a low-volume manufactured laboratory-grade item and this is reasonable for this kind of instrument.

## Explanation of the efforts taken by the department to determine this is the only source and the efforts used to obtain the best possible price:

Project staff looked for other suppliers of this kind of laboratory equipment and only one other provider makes a similar item, but this item not meet the requirements needed for our scope of work.

Any person or entity that objects and proposes that the commodity listed is not sole source and can be provided by another person or entity shall submit a written notice to:

Don Buffum, CPPO  
Director of Procurement & Contracts  
[dbuffum@procurement.msstate.edu](mailto:dbuffum@procurement.msstate.edu)  
Subject Line must read “Sole Source Objection”

The notice shall contain a detailed explanation of why the commodity is not a sole source procurement. Appropriate documentation shall also be submitted if applicable.

If after a review of the submitted notice and documents, MSU determines that the commodity in the proposed sole source request can be provided by another person or entity, then MSU will withdraw the sole source request publication from the procurement portal website and submit the procurement of the commodity to an advertised competitive bid or selection process.

If MSU determines after review that there is only one (1) source for the required commodity, then MSU will appeal to the Public Procurement Review Board. MSU will have the burden of proving that the commodity is only provided by one (1) source.