

Mississippi State University
Notice of Proposed Sole Source Purchase SSP 156-10(7/15)

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.

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

The Mississippi State Chemical Laboratory (MSCL) would like to purchase a refurbished liquid chromatograph (LC) with a triple quadrupole mass spectrophotometer (MS) for the analysis of contaminants in foods and environmental samples. Agilent Technologies currently has a refurbished 1290 LC with a 6460 Triple Quadrupole MS System including 6460 QQQ, workstation, PC and printer, and MassHunter Software with two Data Analysis Licenses. The detailed description and specifications are attached (Agilent G6460 QQQ AJS Specifications).

2. Explanation of the need to be fulfilled by this item(s) and why it is the only one that can meet the specific needs of the department:

The MSCL currently has two existing Agilent LCs coupled to Triple Quadrupole systems that are constantly in use. This is a major consideration for the purchase of a third instrument. The LC/MS-QQQ technology is vital in testing for the MSCL to meet the regulatory and fee-for-service analytical testing needs of the State including: analysis of pesticides and other chemical contaminants in soil, water, fish, insects, mammal tissue, and other matrices. The purchase of similar instrumentation will ensure that MSCL will have common consumables, spare parts, software systems, and bundled service contracts, as well as, working knowledge by the analyst. In addition, due to the compatible software on existing systems, current and future methods will be interchangeable within the Agilent instruments. Method development on one Agilent system will be streamlined with interchangeable data and method files. In the event one instrument requires maintenance, the compatibility among the three will assure the continued sample reporting in a timely fashion to our clients. Currently, a burden is placed upon the analyst and the MSCL when one instrument is off-line. An additional, Agilent LC coupled to a Triple Quadrupole system will assure that MSCL is more efficient in the future. With the expansion of LC/MS work and an USDA FSIS FERN Cooperative Agreement slated to start September 30, 2015, it is imperative that we acquire and install another LC Triple Quadrupole prior to start date.

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

Agilent Technologies is the supplier of the 6460 Triple Quadrupole LC/MS System including 6460 QQQ, workstation, PC and printer, MassHunter Software. The requested system is equipped with Agilent Jet Stream ion source, shall yield a signal-to-noise ratio of >15,000:1, quantifying on the transition m/z 609 to 195, where noise is 1 x RMS, switch from positive ion mode to negative ion mode in <30 ms, and the software must be compatible with data files from existing LC/MS instrumentation. The goal is to have one data analysis software platform to process data from existing single quads and triple quads without having to purchase additional

3rd-party software. Additional system specifications can be found in attachment Agilent G6460 QQQ AJS Specifications. The system must include Jet Stream ESI with heated sheath gas to collimate the nebulizer spray, increasing the concentration of ionized analytes to the MS, and must be upgradable in the future to include APCI and APPI sources, all of which must incorporate a single bend 90 degree orthogonal interface. The two MSCL Agilent LC Triple Quadrupole systems have performed superbly for our needs with minimal issues. The service from Agilent Technologies is excellent, and they have worked with the MSCL to minimize down times. The MSCL needs a third system due to the volume of work currently performed in the laboratory, and especially with the addition of screening procedures to identify contaminants in food sources and environmental samples. The MSCL already has the training and expertise to run these systems, and our laboratory workflow is designed around the software and system. Methods can be transferred from one Agilent system to another simply by transferring files. In contrast, a method developed on an Agilent system will not be interchangeable with the software of another manufacturer. The weeks required to optimize a method on one system would need to be repeated on a system from another manufacturer. It would cost us tens of thousands in time and consumables to learn a new system and redesign our work flow and methods on a system with different consumables, spare parts, and software. We do not have the time or money to retrain personnel to run a different system. The efficiency of the lab will increase with the ability to easily cross train individuals to run three systems with the same operating software.

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

For a limited time, Agilent Technologies has a refurbished 6460 Triple Quadrupole LC/MS System including 6460 QQQ, workstation, PC and printer, MassHunter Software with two Data Analysis Licenses for \$214,784.10 (MSCL - Agilent Refurbished Quote No. 1869951). A new LC/MS, like the two currently in use, is \$312,570.40 (MSCL - Agilent New Quote No. 1870011). The requested refurbished unit is a savings of \$97,700 when compared to new. The cost of the requested sole source item (6460 Triple Quadrupole LC/MS complete system) is a reasonable amount when compared to the cost of a new system and the cost of similar systems without the additional expense of training and building methods on a different system.

5. 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:

The MSCL has a need to purchase an additional LC Triple Quadrupole MS, and the prices of the systems have delayed the purchase. The MSCL also looked into trading a Bruker Ion Trap with Dionex LC for a Bruker Triple Quadrupole. The current Bruker System with Ion Trap is not in use, and analyst has had problems getting the system to function properly. The Bruker EVOQ ELITE LCMS System with trade-in would still be \$287,317.00 (MSCL - Bruker Quote EVOQ 061615) which is still \$72,500 over the requested instrument with trade-in. The availability of a refurbished Agilent Technology 6460 Triple Quadrupole LC/MS System including 6460 QQQ has allowed us the opportunity for a limited time to purchase this needed equipment for the stability of the MSCL.

Agilent Jet Stream technology was the only in-house system able to achieve hormone levels at 10 parts per trillion (ppt). The MSCL Agilent system was also able to detect DOSS (surfactant used in Gulf Oil Spill) at levels below 10 parts per billion from samples processed using QuEChERS procedures. The current Agilent systems have the ability to detect several pesticides (i.e. Dicamba, Quinclorac, and Picloram) at low part per billion levels from vegetation using QuEChERS procedures.

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, CPPPO
Director of Procurement & Contracts

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.