Mississippi State University
Notice of Proposed Sole Source Purchase

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):

New screwdown gearboxes, pyrometer integration software and materials, data acquisition software, and installation for the Fenn 4-125 reversing rolling mill at MSU.

2. 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:

The current screwdown speed is 0.83 inches per minute, which leads to substantial delays during hot rolling. Typical hot rolling processes occur at temperatures up to 2370°F (1300°C), and tight control (and monitoring) over temperature is critical for the strength and toughness of the final rolled steel product. The temperature loss that occurs due to slow screwdown speed is detrimental to our research with industry and DoD partners. The new gearboxes increase the maximum screwdown speed to 3.75 inches per minute, which is over four times faster than our current capability and better represents typical steel hot rolling processes.

The existing setup has no temperature measurement or recording capability. The pyrometer integration software will allow the rolling mill HMI to record the temperature during the hot rolling process, which will provide researchers with necessary understanding to deliver accurate and precise findings to industry and DoD partners. By integrating the pyrometer software with the rolling mill, the need to purchase separate controllers and data acquisition systems is eliminated.

The current data acquisition rate is 1/second, which leaves large gaps in data analysis. The data acquisition software will increase the data acquisition rate to 10/second.

This rolling mill has been used in many funded research projects at CAVS/HPC2, and the new screwdown speed is required to fulfill research obligations that are currently being pursued. Without these gearboxes, future funded research projects may be in jeopardy.

Design and manufacturing of new gearboxes require an intimate understanding of all aspects of the rolling mill including electrical power supply, loading capacity, backend software, HMI controls, and torque capacities. Once new gearboxes have been installed, the software must be

modified to recognize the new gearboxes, account for the new capabilities, and the safety/alarm system must be updated to adjust to the new limitations for safe operation.

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

The parts and services are provided by Fenn LLC. Fenn LLC is also the manufacturer of the rolling mill and therefore the only company with the internal knowledge of the hardware and software used for updating the rolling mill and control system.

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

The estimated cost would be approximately $75,400 ($61,000 in parts + $14,400 in labor), as described in attached quote # 007912-01. Without making these modifications, the alternative option to obtain the same specifications would be to purchase a new additional rolling mill. The current rolling mill was purchased in 2017 for $850,000, which greatly exceeds the cost of modifications.

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:

A statement provided by Fenn LLC states their right to withdraw all further support if a third-party company is used. Fenn LLC. provided an educational discount for $1,000.

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:

Jennifer Mayfield, CPPO
Director of Procurement Services, Chief Procurement Officer
jmayfield@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.

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