City of Tacoma

Questions and Answers

Liquid Chromatography Triple Quadrupole Mass Spectrometer (LC-MS/MS)
RFB Specification No. **ES22-0115N**

All interested parties had the opportunity to submit questions in writing by email to Dawn DeJarlais, Senior Buyer by June 16, 2022. The answers to the questions received are provided below and posted to the City's website at www.TacomaPurchasing.org: Navigate to *Current Contracting Opportunities* / *Supplies Solicitations*, and then click *Questions and Answers* for this Specification. This information IS NOT considered an addendum. Respondents should consider this information when submitting their proposals.

Question 1: **Section 25 Technical Specifications - Please refer to this statement for this question: *Installation will not be considered completed until the Instrument Detection Level (IDL) and Signal to Noise (S/N) requirements, outlined in this specification, are met while using the auto sampler and the electrospray ionization (ESI) source operating in MRM/SRM for both positive and negative.***

We could not locate IDL compound definitions or targeted / required minimum responses. Would you please clarify for us what compounds you will require tested and at what IDLs so we can determine the correct mass spec model to support your work should you award this to us?

Answer 1: Instrument IDL must be 4 fg or less of reserpine in positive mode derived at 99% confidence level from the area precision ((<8% RSD) of 8 sequential injections of 10fg on column quantifying on the transition m/z 609.3 to 195.1 - must pass this checkout specification at installation.

Instrument IDL must be 4 fg or less of chloramphenicol in negative mode derived at 99% confidence level from the area precision ((<8% RSD) of 8 sequential injections of 10fg on column quantifying on the transition m/z 321.0 to 152.0

Question 2: **Component A: Please provide clarification on this requirement "All equipment necessary for APCI, APPI, and multimode sources".**

A. Does this mean COT is requesting three separate ion sources supporting APCI, APPI and multimode ion source for the mass spectrometer?
B. Does COT need an ESI source also? Our experience is all environmentally relevant chemicals measurable via LC can be ionized with ESI or APCI
C. Could you please provide the names of compounds you are using APPI to measure? We would like to include data representing the lack of need for APPI to meet those IDLs.

Answer 2: The City of Tacoma is requesting the instrument come standard with ESI source technology, and be able to support APCI, APPI and Multi-Mode (simultaneous

ESI+APCI) The compounds that the City may be using APPI to measure are primarily personal care products and pharmaceuticals (PCPPs), and polyaromatic hydrocarbons.

Question 3: Component B: The requested Mass range is 5 – 3000.

A. We would like to request this spec be reduced to 2000. There are two reasons for supporting this minor change. 1) Environmental LCMSMS methods don't include masses greater than 1200, 2) more LCMSMS manufacturers do not provide 3000 mass range triple quad systems so you are limiting the field of potential choices.

B. The requested scanning rate is 15,000 u/s. We would like to request this to be 12,000. All of our models do exceed your MRM requirement of > 250 transitions per sec. with their 12,000 u/s RF generator capability, which is the critical data determinant. Further to this our software has a 'smart' MRM window management.

Answer 3: There will be no revisions made to the technical requirements outlined in this specification. Vendors who submit bids for equipment that do not meet the minimum qualifications outlined in the specification will be rejected and marked as non-responsive.

Question 4: Section 7 Contract Term vs Section 15 Warranty

7 Contract term states one two year period with option to renew for third year.
15 Warranty states 3 years labor , 1 year minimum for parts.

Pricing to meet #7 would be one year warranty, one year service contract, and optional one year service contract.

Pricing to meet #15 would require one year full system warranty followed by a 2 year 'labor only' contract which we typically don't recommend.

Please clarify which is most appropriate for your needs.

Answer 4: Section 7 and Section 15 do not contradict each other as warranty coverage and service agreement are two separate items. The warranty should outline what equipment repairs are covered under the policy at no charge and the service agreement would be for those repairs not covered under the policy. While the warranty documentation needs to be included in the submittal packet, the cost of the warranty should be included in the all-inclusive pricing for the equipment line on the Proposal Pricing Sheet.

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Question 5: Per section 16, what are the city's inspection and acceptance criteria that the LC-MS/MS will be subject to? What is the timeline for final inspection to be completed by?

Answer 5: The equipment must conform with the factory specifications using the manufactures' standard criteria. This criteria will need to be provided to the City in advance of equipment delivery.

Question 6: Should the 3 year warranty include scheduled maintenance (PM) visits?

Answer 6: Including scheduled maintenance (PM) visits with the 3-year warranty is encouraged, but entirely optional.

Question 7: Shall the HPLC be manufactured using only PFAS free components to reduce endogenous PFAS background? Endogenous PFAS is one of the most challenging aspects of PFAS analysis.

Answer 7: Please include in your bid if this applies to your instrument in order to best limit endogenous PFAS.

Question 8: Shall the HPLC include provisions for a delay column to reduce PFAS background from mobile phases?

Answer 8: Please include in your bid if this applies to your instrument in order to best limit endogenous PFAS.

Question 9: For the additional APCI, APPI, and Multimode (simultaneous ESI and APCI) sources shall those sources be included or does the mass spectrometer need only to be capable of using those sources? An electrospray source will be included by default.

Answer 9: APCI, APPI, and Multimode (ESI APCI) capability shall be possible; these sources are options that need to be supported and this capability available for the instrument if needed in the future with this instrument.

Question 10: If additional sources are to be included, are APCI and Multimode sources mandatory? APCI and Multimode sources are typically beneficial for the analysis of pesticides, herbicides, and SVOCs. Multimode is particularly advantageous and can double the throughput of pesticides analysis.

Answer 10: Instrument must be able to support these sources, see answer to question 9.

Question 11: If additional sources are to be included, is an APPI source mandatory? APPI is typically not beneficial for the analysis of PFAS, pesticides, herbicides, or SVOCs.

Answer 11: Instrument must be able to support these sources, see answer to question 9.

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Question 12: What is the maximum noise level permissible by the operation of the rough pump?

Answer 12: the absolute maximum, per Labor & Industries (L&I) standard, is 85 dBA equivalent eight-hour time-weighted average sound level.

Question 13: Can you Can you please share the scoring criteria matrix including points categories that will be used to determine award?

Answer 13: The bid must meet specifications and will be awarded primarily based on total cost.

Question 14: What is the desired value for IDL specification as outlined in introduction to section 25? It is started as a requirement at installation, but a value is not specified under component B.

Answer 14: Instrument IDL must be 4 fg or less of reserpine in positive mode derived at 99% confidence level from the area precision ((<8% RSD) of 8 sequential injections of 10fg on column quantifying on the transition m/z 609.3 to 195.1 - must pass this checkout specification at installation.

Instrument IDL must be 4 fg or less of chloramphenicol in negative mode derived at 99% confidence level from the area precision ((<8% RSD) of 8 sequential injections of 10fg on column quantifying on the transition m/z 321.0 to 152.0