



City of Tacoma

Questions and Answers

Cushman 2 Powerhouse Crane Control Upgrade RFP Specification No. **PG21-0655F**

All interested parties had the opportunity to submit questions in writing by email to Tina Eide, Senior Buyer by April 29, 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](#) / *Public Works and Improvements 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: Will scaffolding be allowed to be erected during crane work, if the floors are adequately protected?

Answer 1: Yes

Question 2: Extension for RFP submission. We believe to properly research, design/ specify and price an expert solution. With the different disciplines required - more time is needed. We request the deadline be extended until at least Tuesday 5/31/2022

Answer 2: No

Question 3: Hazardous Material Abatement. Due to the Crane's age, a recognized potential exists for hazardous materials to be found and disturbed during the work described. Are bidders required to include any expected/unexpected abatement as part of their proposal? – Can it be assumed that others will provide these services or provided by the bidder (via a change order) if/when it is found necessary?

Answer 3: We are not testing or abating (removal of a coating), nor asking the contractor to do so. If the contractor performs abatement, we expect advance notice, compliance with applicable parts of this specification, and opportunity to approve the process proposed by the contractor.

Question 4: Cab Control – It appears to be the intention of this specification to provide for an operator to control the crane from the cab. Is this intended for short term/limited functions. Or is it the intention for a crane operator to perform all operations from this space? If it is the later, is it desired that an operator chair be fitted?

Answer 4: Primary crane operations will be performed using the remote control. A seat in the cab is not required.

Question 5: 24VDC – 24vdc control circuit arrangement is mentioned multiple times in the spec. At some points it is mentioned in combination with an option via an 'or' 120vac. In other places it is mentioned that control must be 24vdc. For reason associated with equipment reliability, replacement part availability, circuit complexity and individual component cost – We highly



City of Tacoma

Questions and Answers

recommend removing requirements for 24VDC control – this is both in crane general control circuit and the radio circuit. Can you confirm or remove this requirement? If 24VDC remains a requirement, can a purpose – for the 24VDC requirement, be provided?

Answer 5: The decision to use either 120 VAC or 24 VDC control voltage is left to the discretion of the contractor.

Question 6: Bumpers, Stops & Limit Switches Current design has wheels contacting stops mounted on the rail. The addition of bumpers, end stops, and electrical limits will reduce some of the hook/end approach/coverage area. Is there any direction that hook/ end approach is critical and must be kept to a specified distance?

Answer 6: Since existing building (rail) mounted end stops (scope included) will need to be replaced with a matching design for the new bumpers, the envelope of the existing stop is available for designing a system with no net decrease in operating envelope.

Question 7: Disposal – Is bidder responsible for removal/ disposal of all redundant components including those that may be subject to hazardous material restrictions?

Answer 7: Yes. See Hazardous Materials section of the specification in Addendum 2, Section 01040.

Question 8: Jib Crane – At multiple locations through the spec the term “jib crane” is referenced. Please confirm this is not referring to an otherwise unmentioned jib crane. If a jib crane is required – please provide further details – including location of installation, dimensional, and load capacity specifications.

Answer 8: This is a Bridge Crane. Please disregard statements indicating this is a jib crane.

Question 9: Page 10. Item 11. “Submittal to remain valid until contract is issued. Can you supply a reasonable limit for this time period – to enable bidder to include mitigation for probable price fluctuations? Or will be acceptable for bidder to provide a reasonable expiration date as part of their submittal

Answer 9: In our General Provisions, paragraph 1.09 B, Withdraw of Bid After Opening, we stipulate a limit of 60 calendar days, after which a respondent may withdraw their bid in writing.

Question 10: Page 22. K.1 – Chief Engineer – What are the required minimum qualifications for the Chief Engineer?

Answer 10: He /She shall be a registered professional engineer.



City of Tacoma

Questions and Answers

Question 11: Page 22. K.2 Crane Certification Letter: The specification states “the crane design as a whole” is the intent of this requirement to have an engineer certify the modifications as they pertain to appropriate calculations, design criteria & standards? or is the requirement to certify the entire crane?

Answer 11: The scope of the certification is limited to the parts of the crane affected by the upgrade work. It also includes the suitability of the upgrade design to deliver a functional and fully integrated crane system as a whole, with the assumption that all reused equipment is in good condition.

Question 12: Page 22. K.3 – Crane Installation – Will the engineer be required to certify the entire crane installation or just the components, structures, operation & capacity of the modified components?

Answer 12: Yes. The certification of the installation covers certifying full integration of all new equipment with retained existing equipment. It includes certifying the installation of the upgrade matches the new design as submitted and approved. It also includes any testing appropriate to make such certification.

Question 13: 1.4 – Quality Assurance Program – Is there an additional guidance or standard available - as reference - for what is to be included in the quality assurance program? Or are the items 1 – 5 to be considered the minimum requirements of the program?

Answer 13: These are minimum requirements. Your Quality program will be a consideration in bid evaluations.

Question 14: Page 23 – A General (continued from page 24) 3. Note. Refers to replacing “each” of the motor/gearbox/brake combinations – Prior and post sentences appear to indicate this is only references the machinery involved in horizontal motion. Also “4. Note” Talks about internal modifications to hoist gearboxes. Please confirm that it is not expected that either Aux or Main hoist gearboxes are to be replaced.

Answer 14: Note 3 pertains to all motions of the crane, but notes that we are not committed to the same travel speeds as we currently have. All existing gearboxes and open gear sets are expected to remain in service.

Question 15: Page 23 – A General (continued from page 24) 4. Note: Provided it is the requirements of this specification to leave Aux & Main Gearboxes in place and modify the internal components. Can it be assumed that any unforeseen repairs, replacements, or modification to existing bearings, gears and seals will be at an additional cost via a change order?

Answer 15: Yes, but the pinning of the load brake and inspection of the general health of the gearbox is included in the base scope.



City of Tacoma

Questions and Answers

Question 16: Page 25 – E Motors - 3. 60 Minute Rating. Is it the intention to have true continuous rated motors recommended) or 60 minutes intermittent duty.

Answer 16: 60 Minute Intermittent Duty is adequate

Question 17: Page 25 – F. Gearboxes - AC Controls – Item 5. Mentions 120vac control this conflicts with the 24vdc control mentioned elsewhere. Per previous questions can clarification on this requirement please be provided?

Answer 17: The decision to use either 120 VAC or 24 VDC control voltage is left to the discretion of the contractor.

Question 18: Page 26 – 14. 480vac Lockable disconnect – Should it be assumed that Tacoma power will supply the required connections to the supply side of this disconnect and bidder is responsible for the switch and the connections following the switch? Will a position for mounting this disconnect be pre-defined or will Tacoma Power leave that to the best judgement of the bidder?

Answer 18: Tacoma Power will provide and install a 480 VAC power source and a lockable disconnect located on the main floor of the powerhouse. The contractor shall be responsible for all electrical circuits downstream of this disconnect. The Contractor shall also provide a 480 VAC lockable disconnect located on the crane in the cab near the entrance from the climbing ladder.

Question 19: Page 31 - A. General 1. Here a 60A 480VAC supply is mentioned - we believe that this crane will not operate on that supply. Can this be ignored? If so – is there a maximum available circuit rating or will the circuit rating be designed according to the calculated electrical loading requirement of the crane?

Answer 19: The supply circuit rating will be sized based on the calculated loading requirement for the crane. There is a 400 amp breaker dedicated for the crane.

Question 20: Page 40 – Commissioning Continued. 2. Field Test – Mentions demonstrate the full operating envelope with 100% of rated load. Will practical exceptions be applicable that result from the size and shape of the test load/ risk of collision/ interference with plant & equipment? Can this test be performed with 120% test load?

Answer 20: YES, practical exceptions will likely need to be taken. NO, 120% load is too much for the mechanical test.

Question 21: We would like to submit a bid for the RFQ- PG21-0655F-Cushman 2 Powerhouse Crane Control Upgrade. However, we noticed on Page 32 of the RFQ Specification that there is a specific list of Acceptable Crane Manufacturers. Please see snapshot below from the specs. What process



City of Tacoma

Questions and Answers

do we need to complete in order to be added to this Acceptable Crane Manufacturers list?

1.7 TESTS

1. Furnish necessary testing equipment including test weights as items incidental to the Contract.
2. Perform load testing and full functional testing. Cost of the testing, including replacement parts, corrective action, and labor shall be considered incidental to the Contract.
3. Provide wire rope certification test report.

PART 1 PRODUCTS

2.1 ACCEPTABLE MANUFACTURES

A. MANUFACTURER LIST

1. Abell-Howe Crane, 10321 Werch Drive, Ste 100, Woodridge, IL 60517
Phone: 800-366-0068
2. American Crane & Equipment, 531 Old Swede Road, Douglassville, PA
Phone: 610-385-6061
3. Bushman Equipment Inc., W133 N4960 Campbell Dr., Menomonee Falls, WI 53051
Phone: 800-338-7810
5. David Round, Inc., 10200 Wellman Road, Streetsboro, OH 44241
Phone: 800-535-2725
6. K & N Electric, 415 N Fancher Road, Spokane Valley, WA 99212
Phone: 509-838-8000 or 800-346-6867
7. Konecranes Inc., 4401 Gateway Boulevard, Springfield, OH 45502
Phone: 262-207-1808 or 937-525-5533
8. Spanco Inc., 604 Hemlock Road, Morgantown, PA 19543
Phone: 425-747-2191
9. Whiting Corporation, 26000 Whiting Way, Monee, IL 60449
Phone: 800-861-5744

B. MOUNTING HARDWARE

1. Non-structural fasteners and strut shall be stainless steel.
2. Assemble stainless threaded fasteners with silver grade anti-seize lubricant.

C. SUBSTITUTIONS

1. Substitutions must fully comply with the Specification.

2.2 BRIDGE CRANE

A. GENERAL

1. Standard Products: Materials and equipment shall be standard products of manufacturers regularly engaged in the fabrication of cranes and hoists.
 - a. Any company licensed by a crane and hoist manufacturer to manufacture cranes and hoists bearing their name shall have the design and components approved by the licensor prior to submission to the City for approval.
2. Welding: Welding shall be in accordance with AWS D1.1 or other nationally recognized codes as applicable.



City of Tacoma

Questions and Answers

Answer 21: Per C. Substitutions: Substitutions that fully comply with the Specification will be accepted.