

August 01, 2017

To whom it may concern

**SOURCE SOUGHT FOR A NEW FLOATING CRANE FOR
THE PANAMA CANAL AUTHORITY**

The Panama Canal Authority (ACP), a Republic of Panama Government independent entity in charge of the operation and administration of the Panama Canal, is evaluating the possibility of purchasing one (1) new floating crane. For this purpose, a market research (sources sought) is being conducted to gather technical information and define the appropriate commercial terms and conditions, type of contract, payment conditions, and delivery commitments that will encourage your positive participation in a future Request for Proposal (RFP) in compliance with Article 26 of its Acquisitions Regulations.

This notice does not express or imply a commitment to purchase any supplies or services or enter in any contractual agreement. Your feedback will be used for information purposes and not as a formal proposal. The information received will be considered confidential and will not be disclosed to third parties.

QUESTIONNAIRE

ACP welcomes responses from all interested parties. A capability statement in response to each of the individual draft Statement of work/questions is required. Also if you consider that a specific requirement would eliminate a commercial product or products that could potentially more than satisfactorily comply with ACP goals, will be evaluated. Responses are kindly requested not later than September 25th, 2017.

Contracting terms.

- 1) Once a request for proposal is issued, how much time will you need to prepare a competitive technical and price proposal?

- 2) Based on your production commitments, what is your estimated delivery date for floating crane as described in the enclosed specifications?

- 3) ACP preferred payment terms: Net 30 days (complete terms and conditions are in attached specifications). If your proposal does not comply, explain.
- 4) What is your policy on rights in technical data? The ACP will use, duplicate and disclose the data in whole or in part, for the acquisition, independent operation, maintenance, repairs, and modifications of the equipment only, and will not engage in the commercial reproduction and sales of assemblies, components or parts.
- 5) U.S. dollars is ACP preferred official currency. Will comply?
- 6) What is your policy on performance bonds?
- 7) What is your policy on guarantees for progress payment schedule, for instance?
- 8) Is there any factor or any special conditions or terms that can incentive your participation in this project?
- 9) ACP could use a negotiated open bid process for a future Request for Proposal. For instance, a low price negotiated bid or a best value negotiated bid. Do you have any comments about this sort of bid process? For your reference, ACP has Contract Regulations published in its web page <http://www.pancanal.com/eng/procsales/buy.html>

Technical Terms:

- 10) Please, review the attached **Floating Crane Technical Specifications (Preliminary)** and provide comments/suggestions.
- 11) Will you provide the floating crane as main contractor or only as subcontractor, design or equipment supplier?
- 12) As a main contractor, will you provide all the warranties and technical support after warranty?
- 13) How will you work with your subcontractors in that respect? Would you propose other type of association for the purpose of this contract? Please clarify.
- 14) In comparison with our basic requirements, how many floating crane (or cranes for floating equipment) of similar sizes and complexities have you engineered and built? Please provide references, including date of construction. Similar: equal or bigger capacities, electric driven cranes mounted on barges.
- 15) Where do you propose to build the pontoon (barge)? Where do you propose to build the crane?

16) Which companies or brand names will you propose for manufacturing the machinery equipment, including major electrical equipment, drives, generators, and crane?

17) ACP preferred delivery term is DAP, (Delivery at Place) including any required on-site installation and commissioning, until the floating crane is ready for operation and tested in Panama, Republic of Panama, thru the Pacific or Atlantic canal entrances. Will comply?

18) Which could be your proposed delivery method? Could a semi-submersible vessel be used for the delivery?

19) What quality assurance standards and protocols do you propose to apply for a project of this type?

20) Have you in place a quality control system that is ISO 9001:2008 or 2015 certified? Could you describe the project management methodology for this type of project?

21) Which is the standard production standards being used by the crane manufacturer and building yard? Could you design and built in accordance with well recognized Western European, North American or Japanese production standards?

22) Will you meet the requirement of all steel for hull, piping and crane to be new, certified and tested before the construction? Will you meet the requirement that all steel for hull, piping and crane has a certificate of origin? Is it possible to request that steel for hull and crane, for instance, has a specific origin?

23) What is the customary and/or recommended warranty terms provided by your company on the equipment delivered, in particular for this project?

24) Could you provide more than 365 calendar days of warranty after acceptance of floating crane in Panama?

25) What is the customary and/or recommended type of technical services you will provide after the warranty has expired?

26) Could you provide a possible outline of the Project Planning for this type of project, based on your previous experiences and actual deliveries of major equipment, after an award of a contract? This Project Planning could include the estimated start / finish time of the following milestones or deliverables, but not limited to: basic design, pontoon construction / outfitting, delivery of crane to the building yard, commissioning and testing at building yard, delivery of the floating crane to Panama, and testing and acceptance in Panama.

27) Will the crane for this application be a standard, commercial, proven unit?

28) Could the required power for the complete operation of the crane be produced by gen-sets units installed in an engine room below deck in the pontoon?

29) What types of modifications could be made by the crane manufacturer for floating crane purposes? Are these modifications already proven in service? Explain.

30) Who will be the system designer and supplier for the crane and pontoon equipment?

31) What is the normal life expectancy of your crane? Under what conditions?

32) What is the life expectancy of the major equipment on board the crane? What safety factors or design considerations do you apply for the main components of the crane, attachments, and mounting?

33) What is the proposed customary type of slewing mechanism and mounting (mechanical connection / crane foundation) for the crane assembly on to the pontoon? What is the expected life of the mounting and slewing bearing for the crane?

34) What factory tests do you normally perform for the crane before the delivery to the floating crane building yard? What is your proposed testing time of the crane before leaving the factory?

35) Which problems have been observed on floating cranes in the past?. In accordance with your previous experience, what could be done in order to overcome these problems? For instance, some "problems" could be:

- a) Cracks in boom
- b) Slewing ring replacement
- c) Excessive vibration
- d) Slewing / crane foundation support structural failures
- e) Stability problems when swinging.

36) What stability and trim criteria could be applied for the design of the floating crane? Could the floating crane be designed and built to comply with the stability requirements set forth in the **Technical Specifications**?

37) What are the basin and sea trials normally performed for the floating crane at the building yard? What is your proposed testing time for basin, sea trials, and crane functional tests for the crane before leaving the building yard?

38) In how many main generator sets will you recommend to split the load balance for having the crane operating with acceptable performance, even if one generator is down due to maintenance or other reasons? Could the crane operation be

maintained at not less than 75% of maximum production capacity with one generator set out of service?

39)What electrical codes do you follow for the crane and excavator design (such as IEEE 45)?

40)Do you use programmable logic controllers (PLC) which are open, so that ACP personnel can adjust the parameters within the controller's program in the future, if so required? Do you furnish the PLC programming software?

41)What type of adjustable speed drives, automation controllers (PLCs) and human-machine interfaces will be used?

42)Which will be the voltage level for the main feeder for the crane? Which voltage and electrical frequency will you be able to provide?

43)According to the supplied crane capacity, could you tell us the required power and the voltage of the main power (480 V, 690 V, 2400 V or 4160 V)?

44)What would be the rated voltage for the shore power connection?

45)What is the suggested control and monitor scheme of the whole crane? How many control rooms? What devices do each control room can control and monitor? Is there any interconnection between control rooms? Can you give us a general performance specification of the control system?

46)Will you be able to provide a crane position and lifting monitoring system? What would it consist of?

47)Will the monitoring system have the capability of logging historical data of the operation?

48)Will the crane be equipped with a Condition Monitoring System? What will it consist of?

49)What type of variable frequency drive, automation controllers (PLC) and human-machine interfaces could be considered or used?

50)What type of harmonic distortion mitigation scheme is used?

51)Are the motors and electrical equipment marine grade, mobile equipment, type?

52)Can you provide totally enclosed electronic systems, suitable for marine application?

53) ACP will require training services. What training do you recommend be given at the factory for the crane and for the floating crane assembly? When do you recommend having training at the factory and building yard? How much time and how many people will you suggest be considered for training?

54) Could you provide a cabin with enough space for the crane operator seat and a seat for an apprentice or assistant?

55) What training do you recommend to be given on the A's premises?

56) What safety and environmental regulations are complied with your design? Will the offered design comply with IMO, MARPOL, and other regulations?

57) Will this crane need to comply with IMO's Ballast Water Management convention, which starts to be enforced on September, 2017?

58) What spare parts are normally ordered and supplied with the crane of this size and capacity?

59) Spud system:

- a) Will you consider proposing electric driven or hydraulic driven equipment for the spuds? Why?
- b) Could you provide a rack and pinion design for the drive of the spud systems? Could this system be a hydraulic driven system?

60) Other questions:

- a) What is the availability of spare parts for the offered equipment?
- b) Can you provide, as part of Technical Support, spare parts and replacements parts required for each year for the first (10) years of operation?
- c) What is the recommended replacement schedule of major floating crane components, including the crane parts?

61) Can any additional reference or technical specifications related to a similar crane and pontoon as described in the attached specifications be provided?

62) At the moment of the bid, you would require to submit a technical and economical proposal. Will you provide preliminary design data, such as, drawings, crane detail, evaluation of load cases and performance, power calculations, floating crane principal dimensions and stability calculations, etc.?

63) Would the crane be equipped with a fire alarm and control system? What would it consist of?

64)What international conventions are applicable for the supply of this crane?

POINT OF CONTACT.

Interested parties shall deliver all information requested on questionnaire and work statement. Also information regarding cost and payment terms need to be send to Mrs. Petrona Flowers Box Contract Specialist, e-mail: PFlowers@pancanal.com; telephone (507) 272-1585 not later than September 25th, 2017.

Regina M. Donelson
Contract Officer