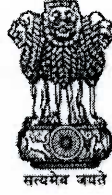


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दूरभाष २४४१६५  
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BOISAR (W.R.)  
जिला: पालघर  
DIST: PALGHAR

भारत सरकार  
GOVERNMENT OF INDIA  
भाभा परमाणु अनुसंधान केंद्र  
BHABHA ATOMIC RESEARCH CENTRE  
नाभिकीय पुनः चक्रण बोर्ड  
NUCLEAR RECYCLE BOARD  
प्रगत ईंधन सविरचन सुविधा  
ADVANCED FUEL FABRICATION FACILITY

Ref. No : BARC(T)/NRB/AFFF/ FPQCS /GEN/07/ 2018/ 240

Date:06 / 02/ 2018

**Sub: Designing, Fabrication and Installation of Sorting System for Cylindrical ceramic object.**

Dear Sir,

Quotations are invited for Enquiry **Sub: Designing, Fabrication and Installation of Sorting System for Cylindrical ceramic object.**

Your quotation in a sealed envelope should reached the undersigned on or before **19/02/2018 upto 14:00 hrs and the sealed quotation will be opened at 15:00 hrs on 19/02/2018** in the presence of Accounts Officer, GSO, BARC Tarapur. The envelope should super scribed the subject and reference number of this letter.

Note:

1) Rs. 7,000/- as Earnest Money Deposit in the form of Account Payee Demand Draft drawn in favour of **Pay and Accounts Officer, NRB, BARC, Tarapur payable at Boisar, Maharashtra** on any nationalized bank / scheduled bank shall be submitted with Quotation in separate sealed cover.

Quotations without EMD will be summarily rejected

2) The contractor shall be required to deposit an amount equal to 5% of the work order value of the contract as **performance guarantee** in the form of DD/ FDR/ BG to be submitted within 15 days from the date of issue of work order or before commencement of work whichever is earlier.

3) **Security Deposit @ 2.5 %** of work order amount will be held till the end of warranty/guaranty period.

Interested suppliers may email following IDs or submit the request letter for any query regarding work order

Mrs. Nilima Walinjar 02525-290100 [nvwalinjar@barctara.gov.in](mailto:nvwalinjar@barctara.gov.in)  
Mr. Chetan Baghra: 02525-290374 [chetanbaghra@baratara.gov.in](mailto:chetanbaghra@baratara.gov.in)

*Nilima*

## **Annexure I: Sorting System for cylindrical ceramic object**

### Description:

Advanced Fuel Fabrication Facility is fabricating two type of pellets both having diameter ranging from 5.35 – 5.58mm and having length ranging from 6.5-8.5 mm but one of the type of pellet having concentric through-n-through hole in the center (1.8mm in dia). These pellets are flat at both the ends and can easily stand on its own. We require a system which we termed as Sorting System for automatic separation of these two type of pellets. Basis of separation: pellet with hole in one bin and pellet without hole in other. The system must have

1. A bowl feeder of to hold 2500-3000 pellets. (5 kg total in weight). The material of the bowl feeder should be SS 304. The vibration pad for bowl feeder should be such that no observable vibration should be felt on the base. Minimum feeding rate must be 50to 60 pellets per minute.
  2. The system will be installed inside the enclosed chamber called glove box having maximum dimensions of 1m X 1m X 1m. Maximum dimension of bowl feeder or linear feeder or whole system must be such that it can pass through 10” cylindrical port which is 2” in length in assembled or dissembled condition.
  3. It should rotate pellet on it cylindrical axis so that all the cylindrical surface is visible to operator
  4. It should have at least 300 mm linear guide so that operator can pick the pellet while it is rotating on its cylindrical axis. It must have pneumatic or electrical system so to drop the pellet having chips on the edges from the feeder into collecting bin.
  5. Finally the pellets must be segregated into two categories as pellets with hole and pellets without hole. The segregation must be automated using laser beam or camera system to detect hole to segregate the pellets. System must also have provision for manual segregation of pellet in addition to automated segregation.
  6. The speed of segregation must be at least 40 pellets per min.
  7. Collector bins for collecting pellet with hole and pellet without hole.
  8. Speed controller for bowl feeder & Foot switch for On/off control of bowl feeder.
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*(Signature)*

**Scope of Supply:**

1. Bowl Feeder: Diameter less than 200mm and must hold 3kg pellets as mentioned above.
  2. Linear Feeder of minimum 300mm in length and maximum width less than 200mm.
  3. Laser having beam width less than 200micron.
  4. Two Collector bins for holding pellets
  5. Bowl feeder and its control should be separate so to keep control outside glove box.
  6. Sufficient length of cables approx. 10m must be provided for making connection via glove box panel.
  7. Foot switch for operating bowl feeder and linear feeder.
8. **Acceptance Criteria: The acceptance of Sorting System for cylindrical ceramic object will be subjected to fulfillment of following conditions:**
- a. All the requirements mentioned in the specification from Serial No (1) to (8) and scope of supply must be met.
  - b. Designing of Sorting System for cylindrical ceramic object is in scope of the supplier and Mechanical Drawing must be sent for approval before commencing fabrication work.
  - c. Supplier must submit schematic drawing while quoting for this job
  - d. Pre-dispatch inspection of the polishing machine will be done at supplier end by performing segregation of dummy pellets brought by us.
  - e. Final Inspection of the machine will be done after installing machine inside the glove box at out end. It is reiterated that machine dimension must be such that it can pass through 10inch circular port in assembled or dissembled condition.
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