

Annexure-I

<u>ITEM NO.</u>	:	<b>Horizontal Centrifugal 2<sup>nd</sup>. Eluent liquor pump with motor, base, coupling with tyre, mech. Seal etc. – 2 sets.</b>
Duty	:	To pump acidic uranium solution containing 38 gm./ltr. of chloride ion and 35 gm./ltr. of sulphate ion from column containing resin bed.
Capacity	:	20 m <sup>3</sup> /hr.
T.D.H.	:	18 mtr. (Shut head must be less than 35 mtr.)
pH	:	0.9 to 1.2
Specific Gravity	:	1.05
Temperature	:	Ambient
Viscosity	:	0.85 cp.
Gland Arrangement	:	Mech. Seal with GFT Vrs. Ceramic face combination of DURA/SEALOL make.
M.O.C.	:	All wetted part should be Hastelloy-C. Shaft sleeve & impeller lock nut must be Hastelloy-C. Shaft should be SS-316/A-20/H-C.
Pump Speed	:	Offer should be given for 2900 RPM speed only.
MOC of Motor	:	Siemens/Bharat Bijlee/ Kirloskar Motors/ABB
MOC of Pump Base	:	SS 304

Gland arrangement: Mech seal with SiC Vs SiC combination (make leak-proof/Eagle Buegemann/Sealwell).

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## Annexure-II

The offer must be submitted in the given format

Pump model & type offered	-	
Speed of the pump	-	
Suction & discharge (mm)		
Type of drive (V belt or direct coupled)	-	
Type & make of pulley	-	
Capacity offered (m <sup>3</sup> /hr)	-	
Head Offered (m)	-	
NPSH required	-	
BKW required	-	
Motor offered make & rating	-	
Impeller type & diameter offered	-	
Full size of impeller offered	-	
Drive end bearing No.	-	
Non drive end bearing No.	-	
Shaft diameter at impeller end	-	
Distance between NDE bearing and impeller	-	
Distance between bearings (NDE & DE)	-	
Weight of bare pump (Kgs.)	-	
Weight of structural base (Kgs.)	-	
Weight of motor (Kgs.)	-	
Type of lubrication offered	-	
Material of construction of		
a) Casing	-	
b) Impeller	-	
c) shaft	-	
d) shaft sleeve	-	
Gland sealing arrangement / mechanical seal	-	
Pressure & flow of gland sealing water required	-	
Efficiency of pump		

Pump flange shall be drilled as per BS Table 10 D

*Handwritten signature*

### Annexure-III

The offer must contain the following details.

1. Material of construction of parts.
2. Weight of pump, structure & base separately.
3. Detail constructional drawing / sectional drawing of pump with details of bearing fitted along with leaflets.
4. G.A. drawing of pump & motor with dimensions.
5. Dimension of pump base and associated structure.
6. Characteristics curve containing impeller size, type of impeller, head, efficiency, power, NPSH ® etc.
7. All the pumps should be supplied with heavy duty bearing for continuous service.
8. Pulley should be only of reputed MAKE. Base should be structurally fabricated. Cast base is not acceptable.
9. Offer must contain details of guarantee period of performance of pump.  
Normal guarantee period is 12 months from the date of installation or 18 months from the date of receipt and acceptance of material at our store. *whichever is earlier*
10. Bank guarantee of amount equivalent to 5% of the value of the order valid for performance guarantee period will have to be submitted before the release of full payment. *and*