

SULPHURIC ACID BARGE					
Ship Building Specifications					
Sl No.	Clause No.	As Per TPS		Changed to	
1	1.3.1	LOA :	50 m (shall not exceed 50 m)	LOA :	52 m (shall not exceed 52 m)
		Breadth :	8.5m (shall not exceed 8.5 m)	Breadth :	9.6m (shall not exceed 9.6 m)
2	10.2.4	An external corrosion allowance of 3 mm shall be considered for fabrication of bullet tanks.		An internal corrosion allowance of 3.2 mm shall be considered for fabrication of bullet tanks.(As per Spec:32667-11-SE-CT201)	
3	10.2.6	Sufficient ullage shall be considered while designing the bullet tanks. Minimum 10% of volume of 200 MT sulphuric acid shall be considered as ullage of each bullet tank for sulphuric acid. Each Bullet Tank including ullage shall be able to store and transport 200 MT sulphuric acid.		Sufficient ullage shall be considered while designing the bullet tanks. Minimum 10% of volume of 200 MT sulphuric acid shall be considered as ullage of each bullet tank for sulphuric acid. Each Bullet Tank including ullage shall be able to store and transport 200 MT sulphuric acid. Dead volume required for the pump shall be maintained in each bullet tank.	
5	10.4.4	Valves shall conform ASME B16.34 & the material of construction valves shall be ASTM A 8290 CD4MCU (Subject to approval from classification agency). All shutoff valves provided shall be Ball valves. Size of the ball valves shall be same as the pipe. Loading & Unloading pipe lines and valves shall be designed as per the pressure rating and discharge of loading and unloading pumps.		Valves shall conform ASME B16.34 & the material of construction valves shall be Alloy 20 (Subject to approval from classification agency). All shutoff valves provided shall be Ball valves. Size of the ball valves shall be same as the pipe. Loading & Unloading pipe lines and valves shall be designed as per the pressure rating and discharge of loading and unloading pumps.	
6	10.4.9	Quick Release Coupling (QRC) shall be provided for both the cargo bullet tanks at the shore connection as per the P&ID(No.32667-11-PD-003R2).		Dry Disconnect Coupling(DDC) shall be provided for both the cargo bullet tanks at the shore connection as per the P&ID. Material of Construction of DDC shall be Alloy 20 .	
7	10.5.2	One standby vertical submersible pump along with motor shall also be provided. Stand by pump shall be placed on weather deck at a suitable location for easier accessibility. Stand by Pump shall be placed in a store room build over weather deck. Store room shall be provided accordingly.		One standby vertical submersible pump along with motor shall be provided.	
8	10.5.7	Unloading pump shall be designed for discharging the Sulphuric acid and pumping out water inside the bullet tanks, which is used for cleaning the internal surfaces of the bullet tanks		Unloading pump shall be designed for discharging the Sulphuric acid. A separate drain pump shall be provided for draining acid from tanks during inspection and cleaning.	
9	10.6.1	Vents shall be installed on each bullet tanks. Vents shall terminate in goose neck bend and are to designed / operated so as to ensure that neither pressure nor vacuum is created in the cargo bullet tanks during loading and unloading.		Breather Valves shall be provided on each bullet tank so as to ensure that neither pressure nor vacuum is created in the cargo bullet tanks during loading and unloading.	
10	10.7.1	A sounding pipe along with dip tape shall be installed on bullet tanks for level measurement of Sulphuric acid. Float, tape & sounding pipe shall be compatible with Sulphuric acid service.		Level measurement of the bullet tanks shall be done by radar. Details of the Radar level measuring instrument are mentioned in Spec: 32667-11-SE-L101. In addition to radar level measurement a separate sounding pipe along with dip tape shall be installed on bullet tanks for level measurement of Sulphuric acid.	

Technical Clarification		
	MDL Query	Clarification
1	Technical Procurement Specification (TPS) Can SS304 material be used in lieu of SS316 for name plates of valves, air pipe and sounding pipe heads etc	Name plates shall be SS316
2	Technical Procurement Specification (TPS) Bidder has a flanging machine which can flare flanges for pipes of size 25NB to 200NB. Instead of the conventional flange welding which is mentioned in the TPS, this method is superior and time saving. Can the flanging machine be used instead of welding flanges to pipes.	Flanges shall be welded to the pipes. Flaring shall not be done
3	Technical Procurement Specification (TPS) Is there a NAS standard for which hydraulic flushing is to be carried ?	No
4	Technical Procurement Specification (TPS) In PGTR, for the five cycles or more, consumables like fuel oil, lube oil, etc are under FACT scope or Bidders scope?	All consumables required for performing the PGTR of the barge shall be borne by contractor
5	Technical Procurement Specification (TPS) Whether indicative voyage time for one cycle can be indicated by FACT so as to ascertain manpower requirements?	Max 20 hrs
6	Technical Procurement Specification (TPS) Is Accommodation of personnel for PGTR will be under FACT scope or Bidders scope?	Accommodation of personnel for PGTR shall be borne by Contractor.
7	General Query Request to forward the pre-bid meeting minutes.	In Pre-bid meeting for Sulphuric acid barge following two parties had attended : 1) M/s Nautilus, Goa 2) M/s KSINC Both the parties have requested to extend the bidding time to minimum 4 weeks and delivery period to 18 -20 months instead of 8 months.
8	Special Conditions of Contract (4.2.15) Please elaborate on assistance / service required from shipyard for First To & Fro voyage of the delivered barge with designated cargo	1) Provide assistance to barge Masters of FACT for navigation of barge during its first voyage 2) Provide assistance for loading and unloading of cargo during the first voyage. 3) Preparation of check list for various machineries/equipments in barge. Checking & confirming parameters as mentioned in check list during the first voyage. 4) Any breakdown of the barge during first voyage shall be attended by Party. All the maintenance and consumable cost associated with breakdown shall be borne by party