Annexure – 1 to ER 17015 dt 08 05 07

TECHNICAL SPECIFICATION OF PASSENGER CUM GOODS ELEVATOR

DESIGN & CONSTRUCTION OF ELEVATOR

01	Applications	Boiler House in power plants
02	Type of Elevator	Rack & Pinion
03	Load carrying capacity	1000kg
04	Total travel	90mtr (vertical transportation)
05	Speed Mtr/Min.	25 to 28
06	No. of floors to be served	Ground + various floors at different elevation up to 90 mtr.
07	Electrical power system	3 phase 4 wire 50HZ 415V +_10%s
	GROUND /LANDING ENCLOSURE	
07	Size of enclosure (LxBxH)mm	As per design to be suitable for men & materials
08	Material construction	As per design
09	Size of landing entrance	To be suitable as per design
10	Door type	As per design
11	Operation of door	Bi parting as per design
12	Inter locking	Electrical & mechanical interlocking of the door to be provided
	MAST	
13	Material	To be suitable specification as per design
14	Construction	---do---
15	Fixing of Mast with Boiler structure	---do---
	CAGE	
16	Size of cage (LxBxH)mm	As per design
17	Material construction	As per design specification as per design
18	Floor type	As per design to be suitable to withstand the capacity
19	Interlocking	Electrical & Mechanical interlocking of the doors to be provided
20	Provision of escape hatch	Yes/no
21	Electrical interlocking of escape hatch with elevator system	Yes/no
22	Provision of guide roller & safety hooks	Yes/no
23	Lighting & fan	One no. fluorescent lamb & one no fan of 230v A/C along with fittings inside the cage to be provided
24	Provision of emergency light	One no. suitable emergency light DC with Baatter6y & Battery charge to be provided
	DRIVE UNIT	
25	Location	As per design
26	No of drive units	2 or as per design
	MOTOR	
27	Make	Rsepustsed make
28	Type	AC squirrel cage Induction Motor
29	Rated power	As per design
30	Speed	As per design
31	Rated voltage	415V+_ 10%
32	Amps	As per design
33	Insulation	Class ‘F’
34	IS no.	As per IS 325

Drive unit of the cage shall be comprising of AC Sq.cage Induction Motor Reduction Gear, Drive Pinion and Over speed governor. Drive unit shall have brake and external brake release. The brake on the electric Motor will be of Electromagnetic. In the event of power failure, the brake will be automatically applied, and will stop the cage. A safety device must be provided to protect the cage against over speed. A remote control shall be provided for testing the safety device.

	BRAKES	
3	Type of brake provided	As per design
36	Provision of interlocking	Yes/no
37	Provision of external manual brake release	Yes/no
38	Type of safety device	As per design
39	Predetermined speed at which the safety device comes into operation	As per design
40	Other details	To be furnished by the vendor
41	Provision of remote control for testing the safety device	As per design
	BUFFERS	
42	Sufficient number of buffers of spring loaded type shall be fitted at base. The buffers shall be capable of stopping the cage without any damages to any part of the equipment.	To be furnished
	CONTROL PANELS	
43	All the electrical components furnished with the cage shall be completed wired, energized and checked. All electrical control devices shall be in enclosures. One auxiliary panel shall be furnished and mounted on the ground level. Panel shall be enclosure equipped with main ON-OFF switch, main contactor, relays, control transformer, MCBs, terminal blocks and all other accessories required for normal operation of the cage	To be furnished
	One main control panel shall be furnished and mounted inside the cage. Panel shall be inclosure equipped with necessary equipment like rectifier, battery, battery charge contactors, control transformer, MCBs thermal overload relays and all other equipment and accessories required for normal operation of the cage. Control system shall have push buttons for “UO “DOWN” STOP NEXT LANDING cage shall be furnished with emergency alarm push button,limit switches and all others necessary control devices required to ensure safe and continuous cage operation. One trailing cable shall connect the cage main control panel to the auxiliary panel at ground level to supply the cage with all power requirements. Cable guides shall be installed at regular intervals to avoid entanglement of the cable. Control cabinets shall be sheet steel enclosed dust, weather and vermin proof. Sheet steel used shall be of suitable thick. Control cabinet shall be provided with suitable doors with locking arrangements. All	

	doors, removable covers and plates shall have suitable gaskets all around.	
44	POWER CABLES	
45	Make	Reputed make
46	Type	PVC insulated Cu. Conductor
47	Rated Voltage	As per IS 1554
48	No of cores	4
49	Applicable standards	IS 1554
	TRAILING CABLES	
50	Make	Reputed make
51	Type	PVC insulated Cu.conductor
52	Rated Voltage	As per IS 1554
53	No of cores	As per IS
54	Applicable standards	IS 1554

55. EARTHING

Complete earthing system shall be furnished for all equipments and accessories of the elevator as per relevant IS

56. PAINTING

All steel sections & equipments shall be furnished and shall be painted as follows.

Primier two coats of Zinc Chromate primer followed by finish. Two coats of Synthetic Enamel Paint to the required thickness.

MANDATORY SPARES:

Sets of mandatory spares for two years of operation are to supplied by the vendor.