



APPENDIX – 2

MATERIAL OF CONSTRUCTION



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Material of Construction should be not below the specified standard :

Equipment :- Reactor		
SI No	Part description	Material Specification
1	Top tube sheet	SA 240 Gr. 316L
2	Reactor Tubes	SA 240 Gr. 316L
3	Stay Tube	SA 240 Gr. 316L
4	Fab. Pipe	SA 240 Gr. 304
5	Manhole Flange	IS 2062 Gr. A
6	Liner	SA 240 Gr. 304
7	Gasket	RED JOINT CAF
8	Cover Flange	IS 2062 Gr. A
9	Bolt & Nut	IS 1367
10	Ferrul for Tube	SA 182 F304
11	Ferrul for Stay Tube	SA 182 F304
12	Nozzle Pipe	SA 312 TP304
13	Expansion Bellow	SS 316L

Equipment:- Reactor Inlet Gas Pre-Heater		
SI No	Part description	Material Specification
1	Inner Shell	SA 312 TP 304
2	Outer Shell	SS 304
3	End Plate	SA 240 Gr 304
4	Nozzle Flanges	IS 2062 Gr A
5	Nozzle Flange Colar	SA 240 Gr 304
6	Neck Pipe	SS 304

Equipment:- Steam Separator-SS		
SI No	Part description	Material Specification
1	Shell Plate	SA 240 Gr. 304
2	Dished End	SA 240 Gr. 304
3	Pad Plate	SA 240 Gr. 304
4	Saddle Plate	IS 2062
5	Gusset Plate	IS 2062
6	Base Plate	IS 2062
7	Earthing Lug	IS 2062
8	Boot Shell	SA 240 Gr. 304
9	Dished Boot Shell	SA 240 Gr. 304
10	Body Flange	SA 285 Gr.C



11	Liner	SA 240 Gr. 304
12	Gasket	RED JOINT CAF
13	Bolt & Nut	IS 1367
14	Demister Pad	SS 304
15	Demister Pad Support	SA 240 Gr. 304
16	RF Pad for Nozzles	SA 240 Gr. 304
17	Pipe for Nozzles	SA 312 TP 304
18	Nozzles Flanges	SA 285 Gr.C
19	Liner for Nozzles	SA 240 Gr. 304
20	Gasket	CAF
21	BAK Flange	SA 285 Gr.C
22	Nozzle Pipe	SA 312 TP 304
23	Earthing Boss	IS 2062

Equipment:- Product Water Cooler Heat Exchanger		
Sl No	Part description	Material Specification
1	Shell	SA 240 Gr 304L
2	Channel Shell	SA 240 Gr 304L
3	Partition Plate	SA 240 Gr 304L
4	Dished End Plate	SA 240 Gr 304L
5	Tubes	SA 312 TP 304L
6	Buffle	SA 240 Gr 304L
7	Spacer	SA 312 TP 304L
8	Tube Sheets	SA 240 Gr 304L

Equipment:- Scrubber Water Methanol Cooler		
Sl No	Part description	Material Specification
1	Inner Pipe	SA 312 TP 304L
2	Outer Pipe (Casing)	SA 312 TP 304L
3	Spacer Plate	SA 312 TP 304L
4	Coupling with Plug	SA 403 F 304L
5	Liner	SA 240 Gr 304L

Equipment :- Re Boiler		
Sl No	Part description	Material Specification
1	Shell	SA 240 Gr. 304L
2	Tube Sheet	SA 240 Gr. 304L
3	Bonnet Shell	SA 240 Gr. 304L
4	Liner	SA 240 Gr. 304L
5	Tube Seamless	SA 213 TP. 304L
6	Feed Deflector Plate	SA 240 Gr. 304L
7	Top Closure	SA 240 Gr. 304L