



~~PRESSURE PARTS / NON-PRESSURE PARTS~~
HEAT TRANSFER ENGINEERING/HPVP
ERECTION WELDING SCHEDULE(WITH WPS No.)

PROJECT

NTPC-TALCHER
90 TPH AUXILIARY BOILER

CUSTOMER No(s).

7936

PRODUCT GROUP	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024	Q2 2024	Q3 2024	Q4 2024	Q1 2025	Q2 2025	Q3 2025	Q4 2025	Q1 2026	Q2 2026	Q3 2026	Q4 2026	Q1 2027	Q2 2027	Q3 2027	Q4 2027	Q1 2028	Q2 2028	Q3 2028	Q4 2028	Q1 2029	Q2 2029	Q3 2029	Q4 2029	Q1 2030	Q2 2030	Q3 2030	Q4 2030	Q1 2031	Q2 2031	Q3 2031	Q4 2031	Q1 2032	Q2 2032	Q3 2032	Q4 2032	Q1 2033	Q2 2033	Q3 2033	Q4 2033	Q1 2034	Q2 2034	Q3 2034	Q4 2034	Q1 2035	Q2 2035	Q3 2035	Q4 2035	Q1 2036	Q2 2036	Q3 2036	Q4 2036	Q1 2037	Q2 2037	Q3 2037	Q4 2037	Q1 2038	Q2 2038	Q3 2038	Q4 2038	Q1 2039	Q2 2039	Q3 2039	Q4 2039	Q1 2040	Q2 2040	Q3 2040	Q4 2040	Q1 2041	Q2 2041	Q3 2041	Q4 2041	Q1 2042	Q2 2042	Q3 2042	Q4 2042	Q1 2043	Q2 2043	Q3 2043	Q4 2043	Q1 2044	Q2 2044	Q3 2044	Q4 2044	Q1 2045	Q2 2045	Q3 2045	Q4 2045	Q1 2046	Q2 2046	Q3 2046	Q4 2046	Q1 2047	Q2 2047	Q3 2047	Q4 2047	Q1 2048	Q2 2048	Q3 2048	Q4 2048	Q1 2049	Q2 2049	Q3 2049	Q4 2049	Q1 2050	Q2 2050	Q3 2050	Q4 2050	Q1 2051	Q2 2051	Q3 2051	Q4 2051	Q1 2052	Q2 2052	Q3 2052	Q4 2052	Q1 2053	Q2 2053	Q3 2053	Q4 2053	Q1 2054	Q2 2054	Q3 2054	Q4 2054	Q1 2055	Q2 2055	Q3 2055	Q4 2055	Q1 2056	Q2 2056	Q3 2056	Q4 2056	Q1 2057	Q2 2057	Q3 2057	Q4 2057	Q1 2058	Q2 2058	Q3 2058	Q4 2058	Q1 2059	Q2 2059	Q3 2059	Q4 2059	Q1 2060	Q2 2060	Q3 2060	Q4 2060	Q1 2061	Q2 2061	Q3 2061	Q4 2061	Q1 2062	Q2 2062	Q3 2062	Q4 2062	Q1 2063	Q2 2063	Q3 2063	Q4 2063	Q1 2064	Q2 2064	Q3 2064	Q4 2064	Q1 2065	Q2 2065	Q3 2065	Q4 2065	Q1 2066	Q2 2066	Q3 2066	Q4 2066	Q1 2067	Q2 2067	Q3 2067	Q4 2067	Q1 2068	Q2 2068	Q3 2068	Q4 2068	Q1 2069	Q2 2069	Q3 2069	Q4 2069	Q1 2070	Q2 2070	Q3 2070	Q4 2070	Q1 2071	Q2 2071	Q3 2071	Q4 2071	Q1 2072	Q2 2072	Q3 2072	Q4 2072	Q1 2073	Q2 2073	Q3 2073	Q4 2073	Q1 2074	Q2 2074	Q3 2074	Q4 2074	Q1 2075	Q2 2075	Q3 2075	Q4 2075	Q1 2076	Q2 2076	Q3 2076	Q4 2076	Q1 2077	Q2 2077	Q3 2077	Q4 2077	Q1 2078	Q2 2078	Q3 2078	Q4 2078	Q1 2079	Q2 2079	Q3 2079	Q4 2079	Q1 2080	Q2 2080	Q3 2080	Q4 2080	Q1 2081	Q2 2081	Q3 2081	Q4 2081	Q1 2082	Q2 2082	Q3 2082	Q4 2082	Q1 2083	Q2 2083	Q3 2083	Q4 2083	Q1 2084	Q2 2084	Q3 2084	Q4 2084	Q1 2085	Q2 2085	Q3 2085	Q4 2085	Q1 2086	Q2 2086	Q3 2086	Q4 2086	Q1 2087	Q2 2087	Q3 2087	Q4 2087	Q1 2088	Q2 2088	Q3 2088	Q4 2088	Q1 2089	Q2 2089	Q3 2089	Q4 2089	Q1 2090	Q2 2090	Q3 2090	Q4 2090	Q1 2091	Q2 2091	Q3 2091	Q4 2091	Q1 2092	Q2 2092	Q3 2092	Q4 2092	Q1 2093	Q2 2093	Q3 2093	Q4 2093	Q1 2094	Q2 2094	Q3 2094	Q4 2094	Q1 2095	Q2 2095	Q3 2095	Q4 2095	Q1 2096	Q2 2096	Q3 2096	Q4 2096	Q1 2097	Q2 2097	Q3 2097	Q4 2097	Q1 2098	Q2 2098	Q3 2098	Q4 2098	Q1 2099	Q2 2099	Q3 2099	Q4 2099	Q1 2100	Q2 2100	Q3 2100	Q4 2100
Electronics																																																																																																																																																																																																																																																																																																																								

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SL. NO.	DRG NO.	DESCRIPTION OF PARTS	MATERIAL	SIZE OF THE ITEM	THICKNESS	WELD SPECN	RECOMMENDED ELECTRODE / WIRE			TOTAL LENGTH/ NO OF WELD	ACTUAL QTY gms/ (NOS)	PREHEAT DEG °C	PWHT DEG °C	MIN RECOMMENDED NDE	WPS NO.
							SPECN	PROCESS ARC/ TIC	SIZE (mm)						
01	0-00-027-U0116	TUBE + TUBE	SA192 + SA192	D76.1	4.5	4.85 √	ER70SA1 + E7018	GTAW + SMAW	∅1.6 ∅2.5	22NO.S	650 GM'S + 210 NO'S	AS PER WPS	—	10% RT 100% MPE	T.M.1.1.50 R01
02	0-00-027-U0116	TUBE + TUBE	SA192 + SA192	D76.1	4.5	4.85 √	ER70SA1 + E7018	GTAW + SMAW	∅1.6 ∅2.5	18NO.S	500 GM'S + 170 NO'S	AS PER WPS	—	10% RT 100% MPE	T.M.1.1.50 R01
03	0-00-027-U0113	FURNACE FRONT PANEL + FRONT BOTTOM HDR'S	SA192 + SA192	D76.1	4.5	4.85 √	ER70SA1 + E7018	GTAW + SMAW	∅1.6 ∅2.5	46NO.S	1.3 KG'S + 430 NO'S	AS PER WPS	—	10% RT 100% MPE	T.M.1.1.50 R01
04	0-00-027-U0113	FURNACE FRONT PANEL + FRONT TOP HDR'S	SA192 + SA192	D76.1	4.5	4.85 √	ER70SA1 + E7018	GTAW + SMAW	∅1.6 ∅2.5	46NO.S	1.3 KG'S + 430 NO'S	AS PER WPS	—	10% RT 100% MPE	T.M.1.1.50 R01
05	0-00-027-U0114	REAR PANEL + REAR BOTTOM HDR'S	SA192 + SA192	D76.1	4.5	4.85 √	ER70SA1 + E7018	GTAW + SMAW	∅1.6 ∅2.5	18NO.S	500 GM'S + 170 NO'S	AS PER WPS	—	10% RT 100% MPE	T.M.1.1.50 R01

		REV. 00		REV. 01		REV. 02		
	NAME	SIGNATURE	DATE	SIGN.	DATE	SIGN.	DATE	
PREPARED	S.M.G.NAIDU			11.07.24				
CHECKED(DSIGN)	K.K			11.07.24				SHEET NO 1 OF 2
CHECKED(W.T.C.)	D.L.K			11.07.24				DRAWING NO. REV.No.
APPROVED	K.K/P.V.D.R			11.07.24				4-07-992-U8441 00



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PROJECT

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90 TPH AUXILIARY BOILER

CUSTOMER No(s).

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PRODUCT GROUP	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024	Q2 2024	Q3 2024	Q4 2024	Q1 2025	Q2 2025	Q3 2025	Q4 2025	Q1 2026	Q2 2026	Q3 2026	Q4 2026	Q1 2027	Q2 2027	Q3 2027	Q4 2027	Q1 2028	Q2 2028	Q3 2028	Q4 2028	Q1 2029	Q2 2029	Q3 2029	Q4 2029	Q1 2030	Q2 2030	Q3 2030	Q4 2030	Q1 2031	Q2 2031	Q3 2031	Q4 2031	Q1 2032	Q2 2032	Q3 2032	Q4 2032	Q1 2033	Q2 2033	Q3 2033	Q4 2033	Q1 2034	Q2 2034	Q3 2034	Q4 2034	Q1 2035	Q2 2035	Q3 2035	Q4 2035	Q1 2036	Q2 2036	Q3 2036	Q4 2036	Q1 2037	Q2 2037	Q3 2037	Q4 2037	Q1 2038	Q2 2038	Q3 2038	Q4 2038	Q1 2039	Q2 2039	Q3 2039	Q4 2039	Q1 2040	Q2 2040	Q3 2040	Q4 2040	Q1 2041	Q2 2041	Q3 2041	Q4 2041	Q1 2042	Q2 2042	Q3 2042	Q4 2042	Q1 2043	Q2 2043	Q3 2043	Q4 2043	Q1 2044	Q2 2044	Q3 2044	Q4 2044	Q1 2045	Q2 2045	Q3 2045	Q4 2045	Q1 2046	Q2 2046	Q3 2046	Q4 2046	Q1 2047	Q2 2047	Q3 2047	Q4 2047	Q1 2048	Q2 2048	Q3 2048	Q4 2048	Q1 2049	Q2 2049	Q3 2049	Q4 2049	Q1 2050	Q2 2050	Q3 2050	Q4 2050	Q1 2051	Q2 2051	Q3 2051	Q4 2051	Q1 2052	Q2 2052	Q3 2052	Q4 2052	Q1 2053	Q2 2053	Q3 2053	Q4 2053	Q1 2054	Q2 2054	Q3 2054	Q4 2054	Q1 2055	Q2 2055	Q3 2055	Q4 2055	Q1 2056	Q2 2056	Q3 2056	Q4 2056	Q1 2057	Q2 2057	Q3 2057	Q4 2057	Q1 2058	Q2 2058	Q3 2058	Q4 2058	Q1 2059	Q2 2059	Q3 2059	Q4 2059	Q1 2060	Q2 2060	Q3 2060	Q4 2060	Q1 2061	Q2 2061	Q3 2061	Q4 2061	Q1 2062	Q2 2062	Q3 2062	Q4 2062	Q1 2063	Q2 2063	Q3 2063	Q4 2063	Q1 2064	Q2 2064	Q3 2064	Q4 2064	Q1 2065	Q2 2065	Q3 2065	Q4 2065	Q1 2066	Q2 2066	Q3 2066	Q4 2066	Q1 2067	Q2 2067	Q3 2067	Q4 2067	Q1 2068	Q2 2068	Q3 2068	Q4 2068	Q1 2069	Q2 2069	Q3 2069	Q4 2069	Q1 2070	Q2 2070	Q3 2070	Q4 2070	Q1 2071	Q2 2071	Q3 2071	Q4 2071	Q1 2072	Q2 2072	Q3 2072	Q4 2072	Q1 2073	Q2 2073	Q3 2073	Q4 2073	Q1 2074	Q2 2074	Q3 2074	Q4 2074	Q1 2075	Q2 2075	Q3 2075	Q4 2075	Q1 2076	Q2 2076	Q3 2076	Q4 2076	Q1 2077	Q2 2077	Q3 2077	Q4 2077	Q1 2078	Q2 2078	Q3 2078	Q4 2078	Q1 2079	Q2 2079	Q3 2079	Q4 2079	Q1 2080	Q2 2080	Q3 2080	Q4 2080	Q1 2081	Q2 2081	Q3 2081	Q4 2081	Q1 2082	Q2 2082	Q3 2082	Q4 2082	Q1 2083	Q2 2083	Q3 2083	Q4 2083	Q1 2084	Q2 2084	Q3 2084	Q4 2084	Q1 2085	Q2 2085	Q3 2085	Q4 2085	Q1 2086	Q2 2086	Q3 2086	Q4 2086	Q1 2087	Q2 2087	Q3 2087	Q4 2087	Q1 2088	Q2 2088	Q3 2088	Q4 2088	Q1 2089	Q2 2089	Q3 2089	Q4 2089	Q1 2090	Q2 2090	Q3 2090	Q4 2090	Q1 2091	Q2 2091	Q3 2091	Q4 2091	Q1 2092	Q2 2092	Q3 2092	Q4 2092	Q1 2093	Q2 2093	Q3 2093	Q4 2093	Q1 2094	Q2 2094	Q3 2094	Q4 2094	Q1 2095	Q2 2095	Q3 2095	Q4 2095	Q1 2096	Q2 2096	Q3 2096	Q4 2096	Q1 2097	Q2 2097	Q3 2097	Q4 2097	Q1 2098	Q2 2098	Q3 2098	Q4 2098	Q1 2099	Q2 2099	Q3 2099	Q4 2099	Q1 2100	Q2 2100	Q3 2100	Q4 2100
Electronics																																																																																																																																																																																																																																																																																																																								

07

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	NAME	REV. 00		REV. 01		REV. 02		
		SIGNATURE	DATE	SIGN.	DATE	SIGN.	DATE	
PREPARED	S.M.G.NAIDU			11.07.24				
CHECKED(DSIGN)	K.K			11.07.24				SHEET NO 2 OF 2
CHECKED(W.T.C.)	D.L.K			11.07.24				DRAWING NO. REV.No.
APPROVED	K.K/P.V.D.R			11.07.24				4-07-992-U8442 00



HT ENGINEERING (CS)

SUMMARY LIST OF SITE ELECTRODES

FROM
SR.MANAGER(ENGG)
BHEL-HPVP
VISAKHAPATNAM-530012

TO
CONSTRUCTION MANAGER,
NTPC-TALCHER AUXILIARY SITE

REF: HTE/CS/S.O 7936/Dt.19-07-2024:

~~PSNR/PSWR/PSER/PSSR~~ ✓

PROJECT: NTPC-TALCHER AUXILIARY

CUSTOMER No(s): 7936

P.G.No(s): 07-992

P.G. NAME(s): WELDING CONSUMABLES.

SL.NO.	TYPE OF ELECTRODE/WIRE	SIZE & QUANTITY – NOs.				TIG WIRE	REMARKS
		D2.5	D3.15	D4.0	D5.0	WT-Kg	
01	ER70SA1	--	--	--	--	10.187	
02	E7018	3375	--	--	--	--	

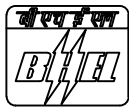
NOTES:-

1. RESERVE 10% ADDED
2. QUANTITY GIVEN IS PER BOILER
3. THIS WELDING SCHEDULE IS FOR REFERENCE PURPOSES ONLY.

ENCL : ERECTION WELDING SCHEDULE SHEET DRG.NO. 4-07-992-U8441 & U8442

- C.C 1. DGM PLANNING
2. Sr.Manager WELDING TECHNOLOGY

DRAWING No.	4-07-992-U9001						
		REV. 00		REV. 01		REV. 02	
	NAME	SIGNATURE	DATE	SIGN.	DATE	SIGN.	DATE
PREPARED	GOWTHAM B		19-07-24				
CHECKED	K.KISHORE		19-07-24				
APPROVED	K.KISHORE		19-07-24				



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ERECTION WELDING SCHEDULE(WITH WPS No.)

PROJECT

NTPC-TALCHER
90 TPH AUXILIARY BOILER

CUSTOMER No(s).

7936

	PRODUCT GROUP
1	Product Group A
2	Product Group B
3	Product Group C
4	Product Group D
5	Product Group E
6	Product Group F
7	Product Group G
8	Product Group H
9	Product Group I
10	Product Group J
11	Product Group K
12	Product Group L
13	Product Group M
14	Product Group N
15	Product Group O
16	Product Group P
17	Product Group Q
18	Product Group R
19	Product Group S
20	Product Group T
21	Product Group U
22	Product Group V
23	Product Group W
24	Product Group X
25	Product Group Y
26	Product Group Z
27	Product Group AA
28	Product Group AB
29	Product Group AC
30	Product Group AD
31	Product Group AE
32	Product Group AF
33	Product Group AG
34	Product Group AH
35	Product Group AI
36	Product Group AJ
37	Product Group AK
38	Product Group AL
39	Product Group AM
40	Product Group AN
41	Product Group AO
42	Product Group AP
43	Product Group AQ
44	Product Group AR
45	Product Group AS
46	Product Group AT
47	Product Group AU
48	Product Group AV
49	Product Group AW
50	Product Group AX
51	Product Group AY
52	Product Group AZ
53	Product Group BA
54	Product Group BB
55	Product Group BC
56	Product Group BD
57	Product Group BE
58	Product Group BF
59	Product Group BG
60	Product Group BH
61	Product Group BI
62	Product Group BJ
63	Product Group BK
64	Product Group BL
65	Product Group BM
66	Product Group BN
67	Product Group BO
68	Product Group BP
69	Product Group BQ
70	Product Group BR
71	Product Group BS
72	Product Group BT
73	Product Group BU
74	Product Group BV
75	Product Group BW
76	Product Group BX
77	Product Group BY
78	Product Group BZ
79	Product Group CA
80	Product Group CB
81	Product Group CC
82	Product Group CD
83	Product Group CE
84	Product Group CF
85	Product Group CG
86	Product Group CH
87	Product Group CI
88	Product Group CJ
89	Product Group CK
90	Product Group CL
91	Product Group CM
92	Product Group CN
93	Product Group CO
94	Product Group CP
95	Product Group CQ
96	Product Group CR
97	Product Group CS
98	Product Group CT
99	Product Group CU
100	Product Group CV
101	Product Group CW
102	Product Group CX
103	Product Group CY
104	Product Group CZ
105	Product Group DA
106	Product Group DB
107	Product Group DC
108	Product Group DD
109	Product Group DE
110	Product Group DF
111	Product Group DG
112	Product Group DH
113	Product Group DI
114	Product Group DJ
115	Product Group DK
116	Product Group DL
117	Product Group DM
118	Product Group DN
119	Product Group DO
120	Product Group DP
121	Product Group DQ
122	Product Group DR
123	Product Group DS
124	Product Group DT
125	Product Group DU
126	Product Group DV
127	Product Group DW
128	Product Group DX
129	Product Group DY
130	Product Group DZ
131	Product Group EA
132	Product Group EB
133	Product Group EC
134	Product Group ED
135	Product Group EE
136	Product Group EF
137	Product Group EG
138	Product Group EH
139	Product Group EI
140	Product Group EJ
141	Product Group EK
142	Product Group EL
143	Product Group EM
144	Product Group EN
145	Product Group EO
146	Product Group EP
147	Product Group EQ
148	Product Group ER
149	Product Group ES
150	Product Group ET
151	Product Group EU
152	Product Group EV
153	Product Group EW
154	Product Group EX
155	Product Group EY
156	Product Group EZ
157	Product Group FA
158	Product Group FB
159	Product Group FC
160	Product Group FD
161	Product Group FE
162	Product Group FF
163	Product Group FG
164	Product Group FH
165	Product Group FI
166	Product Group FJ
167	Product Group FK
168	Product Group FL
169	Product Group FM
170	Product Group FN
171	Product Group FO
172	Product Group FP
173	Product Group FQ
174	Product Group FR
175	Product Group FS
176	Product Group FT
177	Product Group FU
178	Product Group FV
179	Product Group FW
180	Product Group FX
181	Product Group FY
182	Product Group FZ
183	Product Group GA
184	Product Group GB
185	Product Group GC
186	Product Group GD
187	Product Group GE
188	Product Group GF
189	Product Group GG

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SL. NO.	DRG NO.	DESCRIPTION OF PARTS	MATERIAL	SIZE OF THE ITEM	THICKNESS	WELD SPECN	RECOMMENDED ELECTRODE / WIRE			TOTAL LENGTH/ NO. OF WELD	ACTUAL QTY gms/ (NOS)	PREHEAT DEG. °C	PWHT DEG. °C	MIN RECOMMENDED NDE	WPS NO.
							SPECN	PROCESS ARC/ TIC	SIZE (mm)						
01	1-12-850-U8050	DRUM STUB + PIPE	SA105 + SA106GRB	D273	12.7	11.5 √	ER70SA1 + E7018	GTAW + SMAW	ø1.6 ø2.5 ø3.2	2 NO.S	700 GM'S + 120 NO'S 60 NO'S	AS PER WPS	—	100% RT 100% MPE	T.M.1.1.50 R01
02	1-12-850-U8050	PIPE + PIPE	SA234WPB + SA106GRB	D273	12.7	11.5 √	ER70SA1 + E7018	GTAW + SMAW	ø1.6 ø2.5 ø3.2	6 NO.S	2.1 KG'S + 360 NO'S 80 NO'S	AS PER WPS	—	100% RT 100% MPE	T.M.1.1.50 R01
03	1-12-850-U8050	PIPE + PIPE	SA234WPC + SA106GRB	D323.9	12.7	11.5 √	ER70SA1 + E7018	GTAW + SMAW	ø1.6 ø2.5 ø3.2	1 NO.S	420 GM'S + 70 NO'S 35 NO'S	AS PER WPS	—	100% RT 100% MPE	T.M.1.1.50 R01
04	1-12-850-U8050	PIPE + PIPE	SA106GRB + SA234WPB	D323.9	12.7	11.5 √	ER70SA1 + E7018	GTAW + SMAW	ø1.6 ø2.5 ø3.2	4 NO.S	1.7 KG'S + 280 NO'S 140 NO'S	AS PER WPS	—	100% RT 100% MPE	T.M.1.1.50 R01
05	1-12-850-U8050	PIPE + PIPE	SA106GRB + SA106GRB	D323.9	12.7	11.5 √	ER70SA1 + E7018	GTAW + SMAW	ø1.6 ø2.5 ø3.2	1 NO.S	420 GM'S + 70 NO'S 35 NO'S	AS PER WPS	—	100% RT 100% MPE	T.M.1.1.50 R01

	NAME	REV. 00		REV. 01		REV. 02		
		SIGNATURE	DATE	SIGN.	DATE	SIGN.	DATE	
PREPARED	S.M.G.NAIDU			11.07.24				
CHECKED(DESIGN)	K.K			11.07.24				SHEET NO 1 OF 3
CHECKED(W.T.C.)	D.L.K			11.07.24				DRAWING NO. REV.No.
APPROVED	K.K/P.V.D.R			11.07.24				4-12-992-U8308 00



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1	Product Group 1
2	Product Group 2
3	Product Group 3
4	Product Group 4
5	Product Group 5
6	Product Group 6
7	Product Group 7
8	Product Group 8
9	Product Group 9
10	Product Group 10
11	Product Group 11
12	Product Group 12
13	Product Group 13
14	Product Group 14
15	Product Group 15
16	Product Group 16
17	Product Group 17
18	Product Group 18
19	Product Group 19
20	Product Group 20
21	Product Group 21
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44	Product Group 44
45	Product Group 45
46	Product Group 46
47	Product Group 47
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66	Product Group 66
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69	Product Group 69
70	Product Group 70
71	Product Group 71
72	Product Group 72
73	Product Group 73
74	Product Group 74
75	Product Group 75
76	Product Group 76
77	Product Group 77
78	Product Group 78
79	Product Group 79
80	Product Group 80
81	Product Group 81
82	Product Group 82
83	Product Group 83
84	Product Group 84
85	Product Group 85
86	Product Group 86
87	Product Group 87
88	Product Group 88
89	Product Group 89
90	Product Group 90
91	Product Group 91
92	Product Group 92
93	Product Group 93
94	Product Group 94
95	Product Group 95
96	Product Group 96
97	Product Group 97
98	Product Group 98
99	Product Group 99
100	Product Group 100

12

SL. NO.	DRG NO.	DESCRIPTION OF PARTS	MATERIAL	SIZE OF THE ITEM	THICKNESS	WELD SPECN	RECOMMENDED ELECTRODE / WIRE			TOTAL LENGTH/ NO OF WELD	ACTUAL QTY gms/ (NOS)	PREHEAT DEG °C	PWHT DEG °C	MIN RECOMMENDED NDE	WPS NO.
							SPECN	PROCESS ARC/ TIC	SIZE (mm)						
06	0-00-027-U0115	HEADER STUB + COIL	SA106GRB + SA213T11	D50.8	4	4.15 $\widehat{V}$	ER80SB2 + E8018B2	GTAW + SMAW	ϕ 1.6 ϕ 2.5	44NO.S	700 GM'S + 230 NO'S	AS PER WPS	—	100% RT 100% MPE	T.M.1.4.40 R00
07	0-00-027-U0115	HEADER STUB + COIL	SA106GRB + SA213T11	D50.8	4	4.15 $\widehat{V}$	ER80SB2 + E8018B2	GTAW + SMAW	ϕ 1.6 ϕ 2.5	44NO.S	700 GM'S + 230 NO'S	AS PER WPS	—	100% RT 100% MPE	T.M.1.4.40 R00
08	1-80-300-U9453	PIPE + PIPE	SA106GRB + SA106GRB	D406.4	26.19	22.7 $\widehat{V}$	ER70SA1 + E7018	GTAW + SMAW	ϕ 1.6 ϕ 2.5 ϕ 3.2	1 NO.S	1.7 KG'S + 280 NO'S 140 NO'S	AS PER WPS	610 $\pm$ 10°C 60 MIN	100% RT 100% MPE	T.M.1.1.02 R02
09	1-80-300-U9453	PIPE + PIPE	SA106GRB + SA234WPB /SA105	D355.6	15.09	13.3 $\widehat{V}$	ER70SA1 + E7018	GTAW + SMAW	ϕ 1.6 ϕ 2.5 ϕ 3.2	4 NO.S	2.3 KG'S + 385 NO'S 200 NO'S	AS PER WPS	—	100% RT 100% MPE	T.M.1.1.50 R01
10	1-80-300-U9453	PIPE + PIPE	SA106GRB + SA106GRB	D355.6	15.09	13.3 $\widehat{V}$	ER70SA1 + E7018	GTAW + SMAW	ϕ 1.6 ϕ 2.5 ϕ 3.2	4 NO.S	2.3 KG'S + 385 NO'S 200 NO'S	AS PER WPS	—	100% RT 100% MPE	T.M.1.1.50 R01

	NAME	REV. 00		REV. 01		REV. 02		
		SIGNATURE	DATE	SIGN.	DATE	SIGN.	DATE	
PREPARED	S.M.G.NAIDU			11.07.24				
CHECKED(DSIGN)	K.K			11.07.24				SHEET NO 2 OF 3
CHECKED(W.T.C.)	D.L.K			11.07.24				DRAWING NO. REV.No.
APPROVED	K.K/P.V.D.R			11.07.24				4-12-992-U8309 00



PRESSURE PARTS / ~~NON PRESSURE PARTS~~
HEAT TRANSFER ENGINEERING/HPVP
ERECTION WELDING SCHEDULE(WITH WPS No.)

PROJECT	NTPC-TALCHER 90 TPH AUXILIARY BOILER
CUSTOMER No(s).	7936
PRODUCT GROUP	12

SL. NO.	DRG NO.	DESCRIPTION OF PARTS	MATERIAL	SIZE OF THE ITEM	THICKNESS	WELD SPECN	RECOMMENDED ELECTRODE / WIRE			TOTAL LENGTH/ NO OF WELD	ACTUAL QTY gms/ (NOS)	PREHEAT DEG .°C	PWHT DEG .°C	MIN RECOMMENDED NDE	WPS NO.	
							SPECN	PROCESS ARC/ TIC	SIZE (mm)							
11	1-80-300-U9453	PIPE + VALVE	SA106GRB + SA216WCB	D355.6	15.09	13.3 √	ER70SA1 + E7018	GTAW + SMAW	∅1.6 ∅2.5 ∅3.2	4 NO.S	2.3 KG'S + 385 NO'S 200 NO'S	AS PER WPS	—	100% RT 100% MPE	T.M.1.1.50 R01	
				REV. 00		REV. 01		REV. 02								
		NAME		SIGNATURE		DATE		SIGN.								DATE
PREPARED		S.M.G.NAIDU						11.07.24								
CHECKED(DSIGN)		K.K						11.07.24						SHEET NO 3 OF 3		
CHECKED(W.T.C.)		D.L.K						11.07.24						DRAWING NO.		REV.No.
APPROVED		K.K/P.V.D.R						11.07.24						4-12-992-U8310		00



HT ENGINEERING (CS)

SUMMARY LIST OF SITE ELECTRODES

FROM
SR.MANAGER(ENGG)
BHEL-HPVP
VISAKHAPATNAM-530012

TO
CONSTRUCTION MANAGER,
NTPC-TALCHER AUXILIARY SITE

REF: HTE/CS/S.O 7936/Dt.19-07-2024:

~~PSNR/PSWR/PSER/PSSR~~ ✓

PROJECT: NTPC-TALCHER AUXILIARY

CUSTOMER No(s): 7936

P.G.No(s): 12-992

P.G. NAME(s): WELDING CONSUMABLES.

SL.NO.	TYPE OF ELECTRODE/WIRE	SIZE & QUANTITY - NOs.				TIG WIRE	REMARKS
		D2.5	D3.15	D4.0	D5.0	WT-Kg	
01	ER70SA1	--	--	--	--	17.425	
02	ER80SB2	--	--	--	--	1.750	
02	E8018B2	575	--	--	--		
02	E7018	2918.7	1362.5		--	--	

NOTES:-

1. RESERVE 10% ADDED
2. QUANTITY GIVEN IS PER BOILER
3. THIS WELDING SCHEDULE IS FOR REFERENCE PURPOSES ONLY.

ENCL : ERECTION WELDING SCHEDULE SHEET DRG.NO. 4-12-992-U8308,U8309 & U8310

- C.C 1. DGM PLANNING
2. Sr.Manager WELDING TECHNOLOGY

DRAWING No.	4-12-992-U9003						
		REV. 00		REV. 01		REV. 02	
	NAME	SIGNATURE	DATE	SIGN.	DATE	SIGN.	DATE
PREPARED	GOWTHAM B		19-07-24				
CHECKED	K.KISHORE		19-07-24				
APPROVED	K.KISHORE		19-07-24				



PRESSURE PARTS / ~~NON PRESSURE PARTS~~
HEAT TRANSFER ENGINEERING/HPVP
ERECTION WELDING SCHEDULE(WITH WPS No.)

PROJECT	NTPC-TALCHER 90 TPH AUXILIARY BOILER
CUSTOMER No(s).	7936
PRODUCT GROUP	19

SL. NO.	DRG NO.	DESCRIPTION OF PARTS	MATERIAL	SIZE OF THE ITEM	THICKNESS	WELD SPECN	RECOMMENDED ELECTRODE / WIRE			TOTAL LENGTH/ NO OF WELD	ACTUAL QTY gms/(NOS)	PREHEAT DEG °C	PWHT DEG °C	MIN RECOMMENDED NDE	WPS NO.
							SPECN	PROCESS ARC/ TIC	SIZE (mm)						
01	1-19-850-U8108	DRUM STUB + PIPE	SA106RB + SA106GRB	D141.3	9.53	8.6 $\widehat{V}$	ER70SA1 + E7018	GTAW + SMAW	ϕ 1.6 ϕ 2.5 ϕ 3.2	1 NO.	120 GM'S + 20 NO'S 10 NO'S	AS PER WPS	—	100% RT 100% MPE	T.M.1.1.50 R01
02	1-19-850-U8108	PIPE + PIPE	SA106GRB + SA106GRB	D141.3	9.53	8.6 $\widehat{V}$	ER70SA1 + E7018	GTAW + SMAW	ϕ 1.6 ϕ 2.5 ϕ 3.2	7 NO.S	800 GM'S + 140 NO'S 70 NO'S	AS PER WPS	—	100% RT 100% MPE	T.M.1.1.50 R01
03	1-19-850-U8108	VALVE + VALVE	SA216WCB + SA216WCB	D141.3	9.53	8.6 $\widehat{V}$	ER70SA1 + E7018	GTAW + SMAW	ϕ 1.6 ϕ 2.5 ϕ 3.2	2 NO'S	240 GM'S + 40 NO'S 20 NO'S	AS PER WPS	—	100% RT 100% MPE	T.M.1.1.50 R01

		REV. 00		REV. 01		REV. 02			
	NAME	SIGNATURE	DATE	SIGN.	DATE	SIGN.	DATE		
PREPARED	S.M.G.NAIDU			10.07.24				SHEET NO 1 OF 1	
CHECKED(DSIGN)	K.K			10.07.24					
CHECKED(W.T.C.)	D.L.K			10.07.24				DRAWING NO.	REV.No.
APPROVED	K.K/P.V.D.R			10.07.24				4-19-992-U8452	00



HT ENGINEERING (CS)

SUMMARY LIST OF SITE ELECTRODES

FROM
SR.MANAGER(ENGG)
BHEL-HPVP
VISAKHAPATNAM-530012

TO
CONSTRUCTION MANAGER,
NTPC-TALCHER AUXILIARY SITE
.....

REF: HTE/CS/S.O 7936/Dt.19-07-2024:

~~PSNR/PSWR/PSER/PS~~SR

PROJECT: NTPC-TALCHER AUXILIARY

CUSTOMER No(s): 7936

P.G.No(s): 19-992

P.G. NAME(s): WELDING CONSUMABLES.

SL.NO.	TYPE OF ELECTRODE/WIRE	SIZE & QUANTITY - NOs.				TIG WIRE	REMARKS
		D2.5	D3.15	D4.0	D5.0	WT-Kg	
01	ER70SA1	--	--	--	--	1.45	
02	E7018	250	125	--	--	--	

NOTES:-

1. RESERVE 10% ADDED
2. QUANTITY GIVEN IS PER BOILER
3. THIS WELDING SCHEDULE IS FOR REFERENCE PURPOSES ONLY.

ENCL : ERECTION WELDING SCHEDULE SHEET DRG.NO. 4-19-992-U8452

- C.C 1. DGM PLANNING
2. Sr.Manager WELDING TECHNOLOGY

DRAWING No.	4-19-992-U9002						
		REV. 00		REV. 01		REV. 02	
	NAME	SIGNATURE	DATE	SIGN.	DATE	SIGN.	DATE
PREPARED	GOWTHAM B		19-07-24				
CHECKED	K.KISHORE		19-07-24				
APPROVED	K.KISHORE		19-07-24				

In addition to above Erection Welding Schedule (EWS), erection weld joints pertaining to the Economiser for 3X800 MW NLC Talabira Project shall be considered additionally as per following details.

Sl. No.	Size	Material combination	Quantity
Economiser system			
1	141.3X9.53	SA106GRB/C+SA106GRB/C	15
2	38.1X4.0	SA210GRA1+SA210GRA1	300

Note: In addition to the above, 2200 bank/screen/wall tubes expansion joints with Dia. 63.5/D51 are to be expanded into lower and upper drum- swaging of bank tubes.