

ภาคผนวก ง

สำเนาเอกสารเกี่ยวกับการจัดการด้านเสียง

ภาคผนวก ง-1

แผนการซ่อมบำรุงเครื่องจักรประจำปี พ.ศ. 2565-2566

ID	Task Name	% Complete	Duration	Start	Finish	RO	Dec	Jan	Feb	Mar
0	Major Outage	100%	40.42 days	16 Jan 2:00	25 Feb 12:00	BLCP				
1	Outage Unit 1 Execution Plan	100%	40.42 days	16 Jan 2:00	25 Feb 12:00	BLCP				
2	Unit Shut down	100%	8.25 days	16 Jan 2:00	24 Jan 8:00	OPS				
3	Shutdown @ 2:00	100%	0 hrs	16 Jan 2:00	16 Jan 2:00	OPS				
4	Turbine MOST remote test	100%	15 mins	16 Jan 2:00	16 Jan 2:15	OPS				
5	Gen breaker open	100%	1 hr	16 Jan 2:00	16 Jan 3:00	OPS				
6	Turbine MOST Physical test	100%	1 hr	16 Jan 3:00	16 Jan 4:00	OPS				
7	MFT finish	100%	0 hrs	16 Jan 4:00	16 Jan 4:00	OPS				
8	Turning gear on.	100%	1 hr	16 Jan 4:00	16 Jan 5:00	OPS				
9	Air Force cool down Boiler Isolate Draft system by by pass HP#8	100%	15 hrs	16 Jan 4:00	16 Jan 19:00	OPS				
10	Boiler Team Install Spool HP#8	100%	2 hrs	16 Jan 5:30	16 Jan 7:30	BL				
11	Remove insulation and open all man-hole for boiler	100%	12 hrs	16 Jan 2:00	16 Jan 14:00	ES/BL				
12	Penthouse vacuum cleaning ash	100%	8 days	16 Jan 8:00	24 Jan 8:00	BL				
13	Fire fighting transfermer system test	100%	1 hr	16 Jan 6:00	16 Jan 7:00	OPS/Safety/HV				
14	Maintenance window	100%	37.5 days	16 Jan 8:00	22 Feb 20:00	ENG				
15	Water and steam system inspection	100%	29.17 days	19 Jan 13:00	17 Feb 17:00	LAB				
16	As found internal inspection by Chemist	100%	2.17 days	19 Jan 13:00	21 Jan 17:00	LAB				
17	Storage Tank / Deaerator	100%	4 hrs	19 Jan 13:00	19 Jan 17:00	LAB				
18	Hot well condenser A/B	100%	4 hrs	19 Jan 13:00	19 Jan 17:00	LAB				
19	Steam drum	100%	4 hrs	21 Jan 9:00	21 Jan 13:00	LAB				
20	Blow down Tank	100%	4 hrs	21 Jan 13:00	21 Jan 17:00	LAB				
21	Final internal inspection condition before closed manhole by Chemist	100%	2.25 days	15 Feb 11:00	17 Feb 17:00	LAB				
22	Steam drum	100%	2 hrs	17 Feb 13:00	17 Feb 15:00	LAB				
23	Blow down Tank	100%	2 hrs	17 Feb 15:00	17 Feb 17:00	LAB				
24	Storage Tank / Deaerator	100%	3 hrs	15 Feb 13:00	15 Feb 16:00	LAB				
25	Hot well condenser A/B	100%	3 hrs	15 Feb 11:00	15 Feb 14:00	LAB				
26	Boiler Maintenance	100%	37.5 days	16 Jan 8:00	22 Feb 20:00	BL				
27	As Found IGV of Main Fan and Burner Tilting	100%	1 day	16 Jan 8:00	17 Jan 8:00	BL				
28	Boiler pressure part	100%	37.5 days	16 Jan 8:00	22 Feb 20:00	BL				
29	Furnace	100%	37.5 days	16 Jan 8:00	22 Feb 20:00	BL				
30	Clean Boiler Nose and Slope Tube by water	100%	7 hrs	16 Jan 19:00	17 Jan 2:00	BL				
31	Drone inspection internal Furnace	100%	3 hrs	17 Jan 2:00	17 Jan 5:00	BL				
32	Internal install IU scaffolding	100%	4.79 days	17 Jan 7:00	22 Jan 2:00	ES				
33	Erection floor	100%	3 hrs	17 Jan 7:00	17 Jan 10:00	ES				
34	Base truss	100%	5 hrs	17 Jan 10:00	17 Jan 15:00	ES				
35	Installation Winch and Base Tower	100%	10 hrs	17 Jan 15:00	18 Jan 1:00	ES				
36	Wing Truss	100%	6 hrs	18 Jan 1:00	18 Jan 7:00	ES				
37	Water wall	100%	1.52 days	18 Jan 7:00	19 Jan 19:30	ES				

Task

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2022 unit 1 Draft Outage Schedule

ID	Task Name	% Complete	Duration	Start	Finish	RO	Dec	Jan	Feb	Mar
38	Erect scaffolding at Level 1 (with spandek)	100%	3 hrs	18 Jan 7:00	18 Jan 10:00	ES		Tue 18		
39	Erect scaffolding at Level 2 (with spandek)	100%	3 hrs	18 Jan 10:00	18 Jan 13:00	ES		Tue 18		
40	Erect scaffolding at Level 3 (with spandek)	100%	3 hrs	18 Jan 13:00	18 Jan 16:00	ES		Tue 18		
41	Erect scaffolding at Level 4 (with spandek)	100%	3 hrs	18 Jan 16:00	18 Jan 19:00	ES		Tue 18		
42	Erect scaffolding at Level 5 (with spandek)	100%	2 hrs	18 Jan 19:00	18 Jan 21:00	ES		Tue 18		
43	Erect scaffolding at Level 6 (with spandek)	100%	2 hrs	18 Jan 21:00	18 Jan 23:00	ES		Tue 18		
44	Erect scaffolding at Level 7 (with spandek)	100%	3.5 hrs	18 Jan 23:00	19 Jan 2:30	ES		Tue 18		
45	Erect scaffolding at Level 8 (with spandek)	100%	2.5 hrs	19 Jan 2:30	19 Jan 5:00	ES		Tue 18		
46	Erect scaffolding at Level 9 (with spandek at level 9.5)	100%	2.5 hrs	19 Jan 5:00	19 Jan 7:30	ES		Tue 18		
47	Erect scaffolding at Level 10 (with spandek at level 10.5)	100%	3 hrs	19 Jan 7:30	19 Jan 10:30	ES		Tue 18		
48	Erect scaffolding at Level 11 (with spandek)	100%	3 hrs	19 Jan 10:30	19 Jan 13:30	ES		Tue 18		
49	Erect scaffolding at Level 12	100%	2.5 hrs	19 Jan 13:30	19 Jan 16:00	ES		Tue 18		
50	Erect scaffolding at Level 13	100%	2.5 hrs	19 Jan 16:00	19 Jan 18:30	ES		Tue 18		
51	Erect scaffolding at Level 14	100%	1 hr	19 Jan 18:30	19 Jan 19:30	ES		Tue 18		
52	Erect scaffolding at dance floor	100%	9.5 hrs	19 Jan 19:30	20 Jan 5:00	ES		Tue 18		
53	SH	100%	1.67 days	20 Jan 5:00	21 Jan 21:00	ES		Tue 18		
54	Erect scaffolding at Level 1	100%	4 hrs	20 Jan 5:00	20 Jan 9:00	ES		Tue 18		
55	Erect scaffolding at Level 2 (with spandek)	100%	4 hrs	20 Jan 9:00	20 Jan 13:00	ES		Tue 18		
56	Erect scaffolding at Level 3	100%	4 hrs	20 Jan 13:00	20 Jan 17:00	ES		Tue 18		
57	Erect scaffolding at Level 4 (with spandek)	100%	4 hrs	20 Jan 17:00	20 Jan 21:00	ES		Tue 18		
58	Erect scaffolding at Level 5	100%	4 hrs	20 Jan 21:00	21 Jan 1:00	ES		Tue 18		
59	Erect scaffolding at Level 6 (with spandek)	100%	7 hrs	21 Jan 1:00	21 Jan 8:00	ES		Tue 18		
60	Erect scaffolding at Level 7	100%	7 hrs	21 Jan 8:00	21 Jan 15:00	ES		Tue 18		
61	Erect scaffolding at Level 8 (with spandek)	100%	6 hrs	21 Jan 15:00	21 Jan 21:00	ES		Tue 18		
62	Hopper level - 2.5	100%	2 hrs	21 Jan 21:00	21 Jan 23:00	ES		Tue 18		
63	Hopper level - 1.5	100%	2 hrs	21 Jan 23:00	22 Jan 1:00	ES		Tue 18		
64	Ordinary civil engineer inspection for structure	100%	1 hr	22 Jan 1:00	22 Jan 2:00	ES		Tue 18		
65	Install BS scaffolding at 2ry, 3ry RH	100%	2.25 days	20 Jan 5:00	22 Jan 11:00	BL		Tue 18		
66	Tube sand blasting (Water Wall + 1ry RH + 2ry SH) 450 m2	100%	2.92 days	22 Jan 2:00	25 Jan 0:00	BL		Tue 18		
67	Tube sand blasting (1ry RH) Set-up testing until complete	100%	2.25 days	22 Jan 2:00	24 Jan 8:00	BL		Tue 18		
68	Tube sand blasting (2ry SH) Set-up testing until complete	100%	2.25 days	22 Jan 2:00	24 Jan 8:00	BL		Tue 18		
69	Tube sand blasting (Water Wall) Set-up testing until complete	100%	2.25 days	22 Jan 2:00	24 Jan 8:00	BL		Tue 18		
70	Cleaning sandblast from IU spandek	100%	16 hrs	24 Jan 8:00	25 Jan 0:00	BL		Tue 18		
71	Boiler Inspection	100%	4 days	24 Jan 8:00	28 Jan 8:00	ESCO		Tue 18		
72	Boiler Furnace Inspection and Replacement	100%	33.75 days	16 Jan 8:00	19 Feb 2:00	BL		Tue 18		
73	Water Wall	100%	33.67 days	16 Jan 8:00	19 Feb 0:00	BL		Tue 18		
74	Visual Inspection by TA	100%	2 days	25 Jan 0:00	27 Jan 0:00	MPW		Tue 18		

Task

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ID	Task Name	% Complete	Duration	Start	Finish	RO	Dec	Jan	Feb	Mar
75	TA Pencil UT inspection	100%	2 days	25 Jan 0:00	27 Jan 0:00	MPW		Jan 25	Jan 27	
76	DAICON Pencil UT (Support TA tool)	100%	2 days	25 Jan 0:00	27 Jan 0:00	DAICON		Jan 25	Jan 27	
77	Site Work prepare field transportation tube preparing (F100%	100%	12 days	16 Jan 8:00	28 Jan 8:00	EGCO		Jan 16	Jan 28	
78	WW tube replacement (93 m2) with Additional	100%	548 hrs	25 Jan 0:00	16 Feb 20:00	EGCO		Jan 25	Feb 16	
79	Welding water wall Tube membrane (Fin)	100%	15.5 days	03 Feb 0:00	18 Feb 12:00	EGCO		Feb 03	Feb 18	
80	PT Fin	100%	14 days	04 Feb 10:00	19 Feb 0:00	EGCO		Feb 04	Feb 19	
81	Tube at Burner Panel (Conner B & C)	100%	2 days	06 Feb 1:00	08 Feb 1:00	EGCO		Feb 06	Feb 08	
82	Wall Deslager Port (1 Set)	100%	2 days	09 Feb 1:00	11 Feb 1:00	EGCO		Feb 09	Feb 11	
83	Boiler slope tube replacement (4 conner) - Upto conditio	100%	14 days	28 Jan 0:00	11 Feb 0:00	EGCO		Jan 28	Feb 11	
84	Estimate repair tube thickness reduction from TA Inspection (Max.)	100%	2 days	31 Jan 0:00	02 Feb 0:00	EGCO		Jan 31	Feb 02	
85	2rySH	100%	20 days	25 Jan 0:00	14 Feb 0:00	BL		Jan 25	Feb 14	
86	Scale Detector Inspection at U-Bend (10%) by DAICON	100%	1 day	26 Jan 0:00	27 Jan 0:00	DAICON		Jan 26	Jan 27	
87	Visual Inspection by TA	100%	2 days	27 Jan 0:00	29 Jan 0:00	MPW		Jan 27	Jan 29	
88	NDT inspection by R&D TA (Hardness Test, inner Oxide scale, Replica)	100%	2 days	27 Jan 0:00	29 Jan 0:00	MPW		Jan 27	Jan 29	
89	Thermo cople at Header 2ry SH (Panel 3)	100%	3 days	25 Jan 0:00	28 Jan 0:00	ESCO		Jan 25	Jan 28	
90	Replace Inlet Tube portion all panel= 12 row x 15 tube per row, 102 joints	100%	18 days	27 Jan 0:00	14 Feb 0:00	BL		Jan 27	Feb 14	
91	Estimate tube defect at horizontal tube (Rapper Tube U	100%	5 days	30 Jan 0:00	04 Feb 0:00	BL		Jan 30	Feb 04	
92	Sampling Tube U-Bend 2ry SH Sampling	100%	1 day	04 Feb 0:00	05 Feb 0:00	BL		Feb 04	Feb 05	
93	3rySH	100%	27 days	22 Jan 11:00	18 Feb 11:00	BL		Jan 22	Feb 18	
94	Visual Inspection by TA	100%	1 day	22 Jan 11:00	23 Jan 11:00	MPW		Jan 22	Jan 23	
95	Replace U-Bend tube at 3ry SH (Back log from EMU) 16	100%	26 days	23 Jan 11:00	18 Feb 11:00	BL		Jan 23	Feb 18	
96	Sampling Tube U-Bend 3ry SH Sampling	100%	5 days	28 Jan 11:00	02 Feb 11:00	BL		Jan 28	Feb 02	
97	RT Test	100%	24 days	25 Jan 11:00	18 Feb 11:00	BL		Jan 25	Feb 18	
98	1ryRH	100%	30.5 days	16 Jan 8:00	15 Feb 20:00	BL		Jan 16	Feb 15	
99	Visual Inspection by TA	100%	2 days	28 Jan 0:00	30 Jan 0:00	MPW		Jan 28	Jan 30	
100	NDT inspection by R&D TA (Hardness Test, inner Oxide scale, Replica)	100%	3 days	28 Jan 0:00	31 Jan 0:00	MPW		Jan 28	Jan 31	
101	Installation scaffolding Remove Insulation from externa	100%	3 days	16 Jan 8:00	19 Jan 8:00	ES-CR Asia		Jan 16	Jan 19	
102	Remove skin casing Inlet Header	100%	2 days	19 Jan 8:00	21 Jan 8:00	Bidding		Jan 19	Jan 21	
103	Remove refractory	100%	2 days	21 Jan 8:00	23 Jan 8:00	ES-Visuv.		Jan 21	Jan 23	
104	Install lifting equipment then Transfer cutting tube to grc	100%	3 days	23 Jan 20:00	26 Jan 20:00	BL		Jan 23	Jan 26	
105	Transfer tube inside boiler	100%	3 days	26 Jan 20:00	29 Jan 20:00	BL		Jan 26	Jan 29	
106	Right Side: Cut & Weld Upper #1R, #145R, (#30R to #36R) Lower (#1R to #4), (#29 to #32), (#33 to #36), Front: Cut & Weld Upper #274F to #280F Lower (#274 to #277), (#278 to #281)	100%	13 days	29 Jan 20:00	11 Feb 20:00	BL		Jan 29	Feb 11	
107		100%	14 days	30 Jan 20:00	13 Feb 20:00	BL		Jan 30	Feb 13	

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108	Left Side: Cut & Weld Upper #1L, #145L, (#136 to #142) Lower (#1R to #4), (#135 to #138), (#139 to	100%	14 days	01 Feb 20:00	15 Feb 20:00	BL				
109	RT Test	100%	16 days	30 Jan 20:00	15 Feb 20:00	BL				
110	2tyRH & 3tyRH	100%	25.08 days	25 Jan 0:00	19 Feb 2:00	BL				
111	Installation scaffolding internal	100%	2 days	27 Jan 0:00	29 Jan 0:00	ESCO-PEC				
112	Magnetic test (288 joints)	100%	4 days	25 Jan 0:00	29 Jan 8:00	TISTR				
113	Repair tube (414 joints)	100%	498 hrs	29 Jan 8:00	19 Feb 2:00	ESCO-PEC				
114	Inspection (Magnetic + PMI + PAUT + RT) for maintenance priority (Go & monitoring, repair, replace)	100%	4 days	27 Jan 8:00	31 Jan 8:00	BL				
115	Penthouse (1ty SH De-SH & 2ty SH De-SH)	100%	25.33 days	16 Jan 8:00	10 Feb 16:00	BL				
116	Cutting Tube Nozzle	100%	3 days	20 Jan 19:00	23 Jan 19:00	ESCO-SKK				
117	Desupervisor Inspection nozzle (Bore Scope)	100%	1 day	23 Jan 19:00	24 Jan 19:00	MPW				
118	Welding Retoration + RT	100%	3 days	16 Jan 8:00	19 Jan 8:00	ESCO-SKK				
119	PWHT require by Thickness of CAP	100%	1 day	09 Feb 16:00	10 Feb 16:00	ESCO-JST				
120	Visual Inspection by TA	100%	1 day	24 Jan 8:00	25 Jan 10:00	MPW				
121	3ty SH Header Phase Array at Nozzle No.3 Tube No.1100%	100%	3 days	25 Jan 10:00	28 Jan 12:00	MPW				
122	1ty RH Header Phase Array at #141L, #143L, #145L to 100%	100%	3 days	28 Jan 12:00	31 Jan 14:00	MPW				
123	3ty RH Header MT, Replica & Phase Array Tube No.1 & No. 5 Hardness Test only tube No. 5 by R&D TA	100%	9 days	31 Jan 14:00	09 Feb 16:00	MPW				
124	Penthouse (RH De-SH Both A&B)	100%	18 days	18 Jan 8:00	05 Feb 8:00	BL				
125	Cutting Tube Nozzle	100%	3 days	20 Jan 19:00	23 Jan 19:00	ESCO-SKK				
126	Desupervisor Inspection nozzle (Bore Scope)	100%	1 day	23 Jan 19:00	24 Jan 19:00	MPW				
127	Welding Retoration + RT	100%	15 days	18 Jan 8:00	02 Feb 8:00	ESCO-SKK				
128	PWHT require by Thickness of CAP	100%	3 days	02 Feb 8:00	05 Feb 8:00	ESCO-SKK				
129	BCP-1C replacement spare	100%	24.13 days	27 Jan 8:00	20 Feb 11:00	BL, ACC				
130	Preparation for no load test	100%	0.5 days	27 Jan 8:00	27 Jan 20:00	BL, ACC				
131	Fill water and leave 12 Hr.	100%	25 hrs	27 Jan 8:00	28 Jan 9:00	BL, ACC				
132	No load test	100%	0.5 days	28 Jan 9:00	28 Jan 21:00	BL, ACC/HV				
133	Preparation for roll out & roll in work	100%	1.5 days	28 Jan 21:00	30 Jan 9:00	BL, ACC				
134	Bolt heating of existing BCP	100%	0.5 days	29 Jan 21:00	30 Jan 9:00	BL, ACC				
135	Existing BCP dismantling to ground floor	100%	1 day	30 Jan 9:00	31 Jan 9:00	BL, ACC				
136	Cooler dismantling to ground floor	100%	0.5 days	30 Jan 21:00	31 Jan 9:00	BL, ACC				
137	Transport pump and cooler to TSST	100%	0.5 days	31 Jan 9:00	31 Jan 21:00	BL, ACC				
138	Cleaning work, PT inspection upper casing	100%	1 day	31 Jan 9:00	01 Feb 9:00	BL, ACC				
139	Preparation for lifting up the spare BCP	100%	0.5 days	31 Jan 21:00	01 Feb 9:00	BL, ACC				
140	Lifting new pump and setting	100%	1 day	01 Feb 9:00	02 Feb 9:00	BL, ACC				
141	Bolt heating	100%	1 day	02 Feb 9:00	03 Feb 9:00	BL, ACC				
142	Cooler cleaning and inspection	100%	2 days	01 Feb 9:00	03 Feb 9:00	BL, ACC				
143	Cooler transport back to BLCF	100%	0.5 days	03 Feb 9:00	03 Feb 21:00	BL, ACC				
144	Cooler installation	100%	0.5 days	03 Feb 21:00	04 Feb 9:00	BL, ACC				

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145	Piping work , assemble structure return	100%	1 day	03 Feb 21:00	04 Feb 21:00	BL, ACC				
146	Remove lifting tools	100%	0.5 days	04 Feb 21:00	05 Feb 9:00	BL, ACC				
147	Fill demin water by BLCF	100%	4 hrs	05 Feb 9:00	05 Feb 13:00	BL, ACC				
148	Connect electric cable by BLCF	100%	4 hrs	05 Feb 13:00	05 Feb 17:00	BL, ACC/HV				
149	Test run	100%	1 hr	20 Feb 10:00	20 Feb 11:00	BL, ACC/HV/OPS				
150	Remove IU scaffolding	100%	2.33 days	19 Feb 20:00	22 Feb 4:00	ES				
151	SH	100%	1 day	19 Feb 20:00	20 Feb 20:00	ES				
152	Removal Level 6 and Mobilize from Boiler	100%	6 hrs	19 Feb 20:00	20 Feb 2:00	ES				
153	Removal Level 4 and Mobilize from Boiler	100%	6 hrs	20 Feb 2:00	20 Feb 8:00	ES				
154	Removal Level 3 and Mobilize from Boiler	100%	6 hrs	20 Feb 8:00	20 Feb 14:00	ES				
155	Removal Level 2 and Mobilize from Boiler	100%	6 hrs	20 Feb 14:00	20 Feb 20:00	ES				
156	Dance floor	100%	6 hrs	20 Feb 20:00	21 Feb 2:00	ES				
157	Water wall	100%	0.79 days	21 Feb 2:00	21 Feb 21:00	ES				
158	Removal Level 14 and Mobilize from Boiler (without spandeck)	100%	1 hr	21 Feb 2:00	21 Feb 3:00	ES				
159	Removal Level 13 and Mobilize from Boiler (without spandeck)	100%	1 hr	21 Feb 3:00	21 Feb 4:00	ES				
160	Removal Level 12 and Mobilize from Boiler (without spandeck)	100%	1 hr	21 Feb 4:00	21 Feb 5:00	ES				
161	Removal Level 11.5 and Mobilize from Boiler (with spandeck)	100%	1 hr	21 Feb 5:00	21 Feb 6:00	ES				
162	Removal Level 10.5 and Mobilize from Boiler (with spandeck)	100%	2.5 hrs	21 Feb 6:00	21 Feb 8:30	ES				
163	Removal Level 9.5 and Mobilize from Boiler (with spandeck)	100%	3.5 hrs	21 Feb 8:30	21 Feb 12:00	ES				
164	Removal Level 8 and Mobilize from Boiler (with spandeck)	100%	1.5 hrs	21 Feb 12:00	21 Feb 13:30	ES				
165	Removal Level 7 and Mobilize from Boiler (with spandeck)	100%	1.5 hrs	21 Feb 13:30	21 Feb 15:00	ES				
166	Removal Level 6 and Mobilize from Boiler (with spandeck)	100%	1 hr	21 Feb 15:00	21 Feb 16:00	ES				
167	Removal Level 5 and Mobilize from Boiler (without spandeck)	100%	1 hr	21 Feb 16:00	21 Feb 17:00	ES				
168	Removal Level 4 and Mobilize from Boiler (with spandeck)	100%	1 hr	21 Feb 17:00	21 Feb 18:00	ES				
169	Removal Level 3 and Mobilize from Boiler (without spandeck)	100%	1 hr	21 Feb 18:00	21 Feb 19:00	ES				
170	Removal Level 2 and Mobilize from Boiler (with spandeck)	100%	1 hr	21 Feb 19:00	21 Feb 20:00	ES				
171	Removal Level 1 and Mobilize from Boiler (with spandeck)	100%	1 hr	21 Feb 20:00	21 Feb 21:00	ES				

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ID	Task Name	% Complete	Duration	Start	Finish	RO	Dec	Jan	Feb	Mar
172	Wing Truss	100%	2 hrs	21 Feb 21:00	21 Feb 23:00	ES			Mon 21	Mon 21
173	Base truss	100%	2 hrs	21 Feb 23:00	22 Feb 1:00	ES			Mon 21	Tue 22
174	Erection floor	100%	1 hr	22 Feb 1:00	22 Feb 2:00	ES			Tue 22	Tue 22
175	Hopper level - 1.5	100%	1 hr	22 Feb 2:00	22 Feb 3:00	ES			Tue 22	Tue 22
176	Hopper level - 2.5	100%	1 hr	22 Feb 3:00	22 Feb 4:00	ES			Tue 22	Tue 22
177	1tryRH outside after hydro-test	100%	3 days	19 Feb 20:00	22 Feb 20:00	BL/ES			Sat 19	Sun 20
178	Welding skalob seal then install refractory	100%	1 day	19 Feb 20:00	20 Feb 20:00	BL			Sun 20	Mon 21
179	Welding Close Skin casing	100%	1 day	20 Feb 20:00	21 Feb 20:00	BL			Sun 20	Mon 21
180	Installation & remove scaffolding (outside)	100%	1 day	21 Feb 20:00	22 Feb 20:00	ES-Visuv.			Mon 21	Tue 22
181	Back part	100%	36.83 days	16 Jan 8:00	22 Feb 4:00	BL			Mon 15	Tue 22
182	As found inspection	100%	2 hrs	16 Jan 19:00	16 Jan 21:00	BL			Sun 16	
183	Install Scaffolding Economizer Lower	100%	24 hrs	16 Jan 21:00	17 Jan 21:00	BL			Sun 16	
184	Install Scaffolding 1trySH	100%	2 days	17 Jan 21:00	19 Jan 21:00	BL			Mon 17	
185	Economizer	100%	32.5 days	16 Jan 8:00	17 Feb 20:00	BL			Mon 17	
186	Visual Inspection by TA	100%	1 day	16 Jan 8:00	17 Jan 8:00	MPW			Sun 16	
187	Set-Up Equipment, Mark Cut and Cutting tube for Inner U	100%	41 hrs	16 Jan 21:00	18 Jan 14:00	BLCP-WRC			Sun 16	
188	Inner UT (3 Set of Equipment) estimate max 4.5 Panels /day. Total 56 Panels	100%	12.25 days	18 Jan 14:00	30 Jan 20:00	MHI			Sun 16	
189	Panel 1	100%	2.25 days	18 Jan 14:00	20 Jan 20:00	MHI			Tue 18	
190	Pig Cleaning	100%	0.5 days	18 Jan 14:00	19 Jan 2:00	MHI			Tue 18	
191	Inspection	100%	0.5 days	19 Jan 2:00	19 Jan 14:00	MHI			Wed 19	
192	Analysis	100%	1.25 days	19 Jan 14:00	20 Jan 20:00	MHI			Wed 19	
193	Panel 2,3,4 >> Plug panel 4	100%	3.25 days	18 Jan 14:00	21 Jan 20:00	MHI			Wed 19	
194	Pig Cleaning	100%	1 day	18 Jan 14:00	19 Jan 14:00	MHI			Tue 18	
195	Inspection	100%	1 day	19 Jan 14:00	20 Jan 14:00	MHI			Wed 19	
196	Analysis	100%	1.25 days	20 Jan 14:00	21 Jan 20:00	MHI			Thu 20	
197	Panel 5,6 >> Plug panel 5&6	100%	2.25 days	19 Jan 14:00	21 Jan 20:00	MHI			Wed 19	
198	Pig Cleaning	100%	0.5 days	19 Jan 14:00	20 Jan 2:00	MHI			Thu 20	
199	Inspection	100%	0.5 days	20 Jan 2:00	20 Jan 14:00	MHI			Thu 20	
200	Analysis	100%	1.25 days	20 Jan 14:00	21 Jan 20:00	MHI			Thu 20	
201	Panel 7,39,63	100%	3.25 days	19 Jan 14:00	22 Jan 20:00	MHI			Wed 19	
202	Pig Cleaning	100%	1 day	19 Jan 14:00	20 Jan 14:00	MHI			Thu 20	
203	Inspection	100%	1 day	20 Jan 14:00	21 Jan 20:00	MHI			Thu 20	
204	Analysis	100%	1.25 days	21 Jan 14:00	22 Jan 20:00	MHI			Wed 19	
205	Panel 80, 103	100%	2.75 days	20 Jan 2:00	22 Jan 20:00	MHI			Thu 20	
206	Pig Cleaning	100%	0.5 days	20 Jan 2:00	20 Jan 14:00	MHI			Thu 20	
207	Inspection	100%	1 day	20 Jan 14:00	21 Jan 14:00	MHI			Thu 20	
208	Analysis	100%	1.25 days	21 Jan 14:00	22 Jan 20:00	MHI			Thu 20	
209	Panel 23,24,25,26,27	100%	3.25 days	20 Jan 14:00	23 Jan 20:00	MHI			Thu 20	
210	Pig Cleaning	100%	1 day	20 Jan 14:00	21 Jan 14:00	MHI			Thu 20	

Task

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Rolled Up Critical Task

Rolled Up Milestone

Rolled Up Progress

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Inactive Milestone

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Manual Task

Duration-only

Manual Summary Rollup

Manual Summary

Start-only

Finish-only

External Tasks

External Milestone

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Critical Split

Baseline

Baseline Milestone

Baseline Summary

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Project: Major Outage

Date: 27 Apr 14:51

ID	Task Name	% Complete	Duration	Start	Finish	RO	Dec	Jan	Feb	Mar
211	Inspection	100%	1 day	21 Jan 14:00	22 Jan 14:00	MHI		Jan 21		
212	Analysis	100%	1.25 days	22 Jan 14:00	23 Jan 20:00	MHI		Jan 22		
213	Panel 115,116,117,118,119 >> Plug 119	100%	3.25 days	21 Jan 14:00	24 Jan 20:00	MHI		Jan 21		
214	Pig Cleaning	100%	1 day	21 Jan 14:00	22 Jan 14:00	MHI		Jan 21		
215	Inspection	100%	1 day	22 Jan 14:00	23 Jan 14:00	MHI		Jan 22		
216	Analysis	100%	1.25 days	23 Jan 14:00	24 Jan 20:00	MHI		Jan 23		
217	Panel 120,19,20,130,140	100%	3.25 days	22 Jan 14:00	25 Jan 20:00	MHI		Jan 22		
218	Pig Cleaning	100%	1 day	22 Jan 14:00	23 Jan 14:00	MHI		Jan 22		
219	Inspection	100%	1 day	23 Jan 14:00	24 Jan 14:00	MHI		Jan 23		
220	Analysis	100%	1.25 days	24 Jan 14:00	25 Jan 20:00	MHI		Jan 24		
221	Panel 141,30,48,58,71	100%	3.25 days	23 Jan 14:00	26 Jan 20:00	MHI		Jan 23		
222	Pig Cleaning	100%	1 day	23 Jan 14:00	24 Jan 14:00	MHI		Jan 23		
223	Inspection	100%	1 day	24 Jan 14:00	25 Jan 14:00	MHI		Jan 24		
224	Analysis	100%	1.25 days	25 Jan 14:00	26 Jan 20:00	MHI		Jan 25		
225	Panel 84,112,36,52,83	100%	3.25 days	24 Jan 14:00	27 Jan 20:00	MHI		Jan 24		
226	Pig Cleaning	100%	1 day	24 Jan 14:00	25 Jan 14:00	MHI		Jan 24		
227	Inspection	100%	1 day	25 Jan 14:00	26 Jan 14:00	MHI		Jan 25		
228	Analysis	100%	1.25 days	26 Jan 14:00	27 Jan 20:00	MHI		Jan 26		
229	Panel 90,100,106,42,53	100%	3.25 days	25 Jan 14:00	28 Jan 20:00	MHI		Jan 25		
230	Pig Cleaning	100%	1 day	25 Jan 14:00	26 Jan 14:00	MHI		Jan 25		
231	Inspection	100%	1 day	26 Jan 14:00	27 Jan 14:00	MHI		Jan 26		
232	Analysis	100%	1.25 days	27 Jan 14:00	28 Jan 20:00	MHI		Jan 27		
233	Panel 59,65,77,89,37	100%	2.75 days	26 Jan 14:00	29 Jan 8:00	MHI		Jan 26		
234	Pig Cleaning	100%	0.75 days	26 Jan 14:00	27 Jan 8:00	MHI		Jan 26		
235	Inspection	100%	1 day	27 Jan 8:00	28 Jan 8:00	MHI		Jan 27		
236	Analysis	100%	1 day	28 Jan 8:00	29 Jan 8:00	MHI		Jan 28		
237	Panel 54,88,93,99,105	100%	2.75 days	27 Jan 8:00	30 Jan 2:00	MHI		Jan 27		
238	Pig Cleaning	100%	0.75 days	27 Jan 8:00	28 Jan 2:00	MHI		Jan 27		
239	Inspection	100%	1 day	28 Jan 2:00	29 Jan 2:00	MHI		Jan 28		
240	Analysis	100%	1 day	29 Jan 2:00	30 Jan 2:00	MHI		Jan 29		
241	Panel 43,67,86,92,94	100%	2.75 days	28 Jan 2:00	30 Jan 20:00	MHI		Jan 28		
242	Pig Cleaning	100%	0.75 days	28 Jan 2:00	29 Jan 20:00	MHI		Jan 28		
243	Inspection	100%	1 day	29 Jan 20:00	30 Jan 20:00	MHI		Jan 29		
244	Analysis	100%	1 day	29 Jan 20:00	30 Jan 20:00	MHI		Jan 29		
245	Inner UT tube recovery (448 joints) and Plug tube for Panel no. 4,5,6 & 119 = 23 Joints	100%	18 days	30 Jan 20:00	17 Feb 20:00	EGCO		Jan 30	Feb 17	
246	Estimate repair tube thickness reduction	100%	8 days	08 Feb 20:00	16 Feb 20:00	EGCO		Feb 08	Feb 16	
247	Install protection plate	100%	8 days	08 Feb 20:00	16 Feb 20:00	EGCO		Feb 08	Feb 16	
248	1rySH	100%	1 day	19 Jan 21:00	20 Jan 21:00	BL		Jan 19	Jan 20	
249	Visual Inspection by TA	100%	1 day	19 Jan 21:00	20 Jan 21:00	MPW		Jan 19	Jan 20	

Task

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Rolled Up Critical Task

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Manual Summary

Start-only

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Project: Major Outage

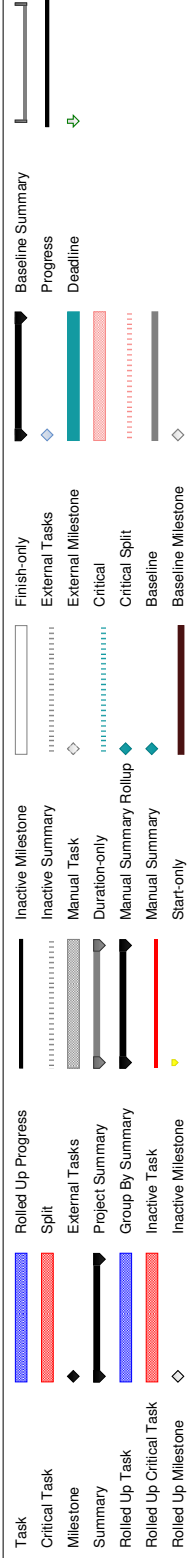
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ID	Task Name	% Complete	Duration	Start	Finish	RO	Dec	Jan	Feb	Mar
250	Boiler Remove Scaffolding 2, 3 ry RH, SH and Economizer	100%	50 hrs	19 Feb 20:00	21 Feb 22:00	BL				
251	Economizer Hopper Cleaning	100%	6 hrs	21 Feb 22:00	22 Feb 4:00	BL				
252	Bottom Ash handling Maintenance	100%	36.17 days	17 Jan 5:00	22 Feb 9:00	FGH				
253	Drag chain conveyor	100%	36.17 days	17 Jan 5:00	22 Feb 9:00	LB				
254	Pull DCC from original position	100%	2 hrs	17 Jan 5:00	17 Jan 7:00	BL				
255	Clean DCC (OPS request vacuum truck)	100%	2 days	17 Jan 7:00	19 Jan 7:00	OPS/BL				
256	DCC Maintenance	100%	30 days	19 Jan 7:00	18 Feb 7:00	BL, ACC				
257	Inspection and measurement of liner thickness etc.	100%	1 day	19 Jan 7:00	20 Jan 7:00	BL, ACC				
258	Replace upper and lower guide roller	100%	1 day	20 Jan 7:00	21 Jan 7:00	BL, ACC				
259	Replace drive gear, drive and non drive sprocket complete	100%	9 days	20 Jan 7:00	30 Jan 7:00	BL, ACC				
260	Welding of upper hopper of crusher	100%	4 days	30 Jan 7:00	03 Feb 7:00	BL, ACC				
261	Welding and installation of DCC seal plates	100%	14 days	03 Feb 7:00	17 Feb 7:00	BL, ACC				
262	Rust moving and Painting	100%	1 day	17 Feb 7:00	18 Feb 7:00	BL, ACC				
263	DCC Inspection and refractory work	100%	14 days	03 Feb 7:00	17 Feb 7:00	ES				
264	BATC Maintenance	100%	30 days	19 Jan 7:00	18 Feb 7:00	BL, ACC				
265	Open cover plates of BATC and inspection	100%	1 day	19 Jan 7:00	20 Jan 7:00	BL, ACC				
266	Replace the upper and lower double disc pulley and Clinkle	100%	1 day	20 Jan 7:00	21 Jan 7:00	BL, ACC				
267	Replace bend pulley, tail pulley and drive pulley	100%	9 days	21 Jan 7:00	30 Jan 7:00	BL, ACC				
268	Replace small pulley including horseback roller, return roller and side roller	100%	10 days	30 Jan 7:00	09 Feb 7:00	BL, ACC				
269	Rust moving and Painting	100%	9 days	09 Feb 7:00	18 Feb 7:00	BL, ACC				
270	Push DCC to original position	100%	3 hrs	22 Feb 4:00	22 Feb 7:00	BL				
271	Cleaning DCC spare tank and close man hole & Back part hopper	100%	1 hr	22 Feb 7:00	22 Feb 8:00	BL				
272	Fill water to DCC, DCC running test and BTA conveyor running test	100%	1 hr	22 Feb 8:00	22 Feb 9:00	OPS				
273	Boiler preparation for start up	100%	4.38 days	18 Feb 0:00	22 Feb 9:00	BL/OPS				
274	Prepare water quality for filling/Washing	100%	1 day	18 Feb 0:00	19 Feb 0:00	BL/OPS				
275	Condenser Hot well (Local)	100%	1 day	18 Feb 0:00	19 Feb 0:00	TB/OPS				
276	CEP recirculation pump (Local)	100%	1 day	18 Feb 0:00	19 Feb 0:00	TB/OPS				
277	Deaerator recirculating pump (Local)	100%	1 day	18 Feb 0:00	19 Feb 0:00	TB/OPS				
278	Instrument gag all equipment	100%	1 day	18 Feb 0:00	19 Feb 0:00	C&I/OPS				
279	Hanger gag all	100%	1 day	18 Feb 0:00	19 Feb 0:00	BL/OPS				
280	Supply Aux. Unit 2 to unit 1 for heating up temp. for MSV	100%	10 hrs	19 Feb 2:00	19 Feb 12:00	TB/OPS				
281	Water quality for Start up (Filling and drain down from Boiler)	100%	0.42 days	19 Feb 2:00	19 Feb 12:00	OPS				
282	Fill water to WW, Steam drum , MSV and flushing and circulating by BCP A and B	100%	6 hrs	19 Feb 2:00	19 Feb 8:00	OPS				



ID	Task Name	% Complete	Duration	Start	Finish	RO	Dec	Jan	Feb	Mar
283	M-BFP running circulation for increase water temperature.(60-70 C) or Deareator Discharge line for MSV	100%	4 hrs	19 Feb 8:00	19 Feb 12:00	OPS			Sat 18	Sat 19
284	Hydrostatic testing , external high pressure pump at RH, SH, Water wall tube	100%	0.33 days	19 Feb 12:00	19 Feb 20:00	OPS/BL			Sat 18	Sat 19
285	Pressure rise from 0-37 barg	100%	2.25 hrs	19 Feb 12:00	19 Feb 14:15	OPS/BL			Sat 18	Sat 19
286	Gag RH safety valve @ 37 barg	100%	15 mins	19 Feb 14:15	19 Feb 14:30	OPS/BL			Sat 18	Sat 19
287	Pressure rise from 37 - 51 barg	100%	15 mins	19 Feb 14:30	19 Feb 14:45	OPS/BL			Sat 18	Sat 19
288	Hold pressure @ 51 barg for inspection RH system	100%	1 hr	19 Feb 14:45	19 Feb 15:45	OPS/BL			Sat 18	Sat 19
289	Pressure rise from 51 - 141.1 barg (2.5 - 3 barg/min)	100%	0.5 hrs	19 Feb 15:45	19 Feb 16:15	OPS/BL			Sat 18	Sat 19
290	Gag Main steam pipe safety valve @ 141.1 barg.	100%	15 mins	19 Feb 16:15	19 Feb 16:30	OPS/BL			Sat 18	Sat 19
291	Pressure rise from 141.1 - 160 barg	100%	10 mins	19 Feb 16:30	19 Feb 16:40	OPS/BL			Sat 18	Sat 19
292	Gag steam drum safety valve @ 160 barg.	100%	10 mins	19 Feb 16:40	19 Feb 16:50	OPS/BL			Sat 18	Sat 19
293	Pressure rise from 160 - 200 barg (2.5 - 3 barg/min)	100%	10 mins	19 Feb 16:50	19 Feb 17:00	OPS/BL			Sat 18	Sat 19
294	Hold pressure @ 200 barg.	100%	10 mins	19 Feb 17:00	19 Feb 17:10	OPS/BL			Sat 18	Sat 19
295	Release pressure from 200 - 160 barg. (3 - 5 barg/min)	100%	10 mins	19 Feb 17:10	19 Feb 17:20	OPS/BL			Sat 18	Sat 19
296	Remove gag steam drum safety valve @ 160 barg.	100%	10 mins	19 Feb 17:20	19 Feb 17:30	OPS/BL			Sat 18	Sat 19
297	Hold pressure @ 160 barg. For internal inspection	100%	1.5 hrs	19 Feb 17:30	19 Feb 19:00	OPS/BL			Sat 18	Sat 19
298	Release pressure from 160 - 141.1 barg. (3 - 5 barg/min)	100%	10 mins	19 Feb 19:00	19 Feb 19:10	OPS/BL			Sat 18	Sat 19
299	Remove gag Main steam pipe safety valve @ 141.1 barg.	100%	15 mins	19 Feb 19:10	19 Feb 19:25	OPS/BL			Sat 18	Sat 19
300	Release pressure from 141.1 - 0 barg. (3 - 5 barg/min)	100%	35 mins	19 Feb 19:25	19 Feb 20:00	OPS/BL			Sat 18	Sat 19
301	Wrapping Equipment	100%	2.25 days	19 Feb 13:30	22 Feb 1:00	Facility			Sat 18	Tue 22
302	Boiler spray test	100%	1 hr	22 Feb 7:00	22 Feb 8:00	OPS/SH			Tue 22	Tue 22
303	Wall De-slagger Drive Test	100%	2 days	18 Feb 8:42	20 Feb 15:00	BL/LV			Fri 18	Sun 20
304	LSB / Furnace temp prob Drive Test	100%	35 hrs	20 Feb 15:00	22 Feb 9:00	C&I/BL			Sun 20	Tue 22
305	BCP, steam drum , Blow down tank return permit.	100%	24 hrs	18 Feb 0:00	19 Feb 0:00	BL			Fri 18	Sun 20
306	Combustion air and flue gas Maintenance	100%	37.13 days	16 Jan 8:00	22 Feb 11:00	FGH			Sun 20	Tue 22
307	COMMON Duct cleaning	100%	12 hrs	16 Jan 19:00	17 Jan 7:00	FGH			Fri 18	Sat 19
308	Cleaning fly ash by Vacuum truck	100%	3.88 days	16 Jan 19:00	20 Jan 16:00	BL			Fri 18	Sat 19
309	AH-A	100%	45 hrs	16 Jan 19:00	18 Jan 16:00	BL. ACC			Sun 16	Mon 17
310	AH-B	100%	2 days	18 Jan 16:00	20 Jan 16:00	BL. ACC			Sun 16	Tue 18
311	Cleaning by high pressure water	100%	6 days	18 Jan 16:00	24 Jan 16:00	BL			Tue 18	Thu 20
312	AH-A	100%	3 days	18 Jan 16:00	21 Jan 16:00	BL. ACC			Tue 18	Fri 21
313	AH-B	100%	4 days	20 Jan 16:00	24 Jan 16:00	BL. ACC			Thu 20	Mon 24
314	AH A	100%	20 days	21 Jan 16:00	10 Feb 16:00	BL			Fri 21	Sun 23
315	Install scaffolding below cold end element for inspection	100%	2 days	21 Jan 16:00	23 Jan 16:00	ES			Sun 23	Mon 24
316	As found location of Soot Blowing system	100%	1 day	23 Jan 16:00	24 Jan 16:00	BL. ACC			Sun 23	Mon 24
317	Sampling remove and install 1 sector of hot end, intermediate and cold end element for weight measurement and inspection	100%	7 days	24 Jan 16:00	31 Jan 16:00	BL. ACC			Mon 24	Mon 31
318	Remote Howden TA for inspection	100%	3 days	24 Jan 16:00	27 Jan 16:00	Howden			Mon 24	Thu 27
319	Replace reducing gear unit	100%	10 days	31 Jan 16:00	10 Feb 16:00	BL. ACC			Mon 31	Thu 10



ID	Task Name	% Complete	Duration	Start	Finish	RO	Dec	Jan	Feb	Mar
320	Inspection and replacement of seal plates	100%	4 days	02 Feb 16:00	06 Feb 16:00	BL/ ACC			Wed 02	Sun 06
321	Remove scaffolding and close man hole	100%	1 day	06 Feb 16:00	07 Feb 16:00	ES			Sun 06	Mon 07
322	AH B	100%	23.5 days	24 Jan 16:00	17 Feb 4:00	BL			Mon 24	Wed 26
323	Install scaffolding below cold end element for inspection	100%	2 days	24 Jan 16:00	26 Jan 16:00	ES			Wed 26	Thu 27
324	As found location of Soot Blowing system	100%	1 day	26 Jan 16:00	27 Jan 16:00	BL/ ACC			Thu 27	Thu 03
325	Sampling remove and install 1 sector of hot end, intermediate and cold end element for weight measurement and inspection	100%	7 days	27 Jan 16:00	03 Feb 16:00	BL/ ACC			Thu 27	Sun 30
326	Remote Howden TA for inspection	100%	3 days	27 Jan 16:00	30 Jan 16:00	Howden			Thu 27	Thu 10
327	Replace reducing gear unit	100%	2 days	10 Feb 16:00	12 Feb 16:00	BL/ ACC			Sat 12	Sat 12
328	Inspection and replacement of seal plates	100%	4 days	12 Feb 16:00	16 Feb 16:00	BL/ ACC			Sat 12	Wed 16
329	Remove scaffolding and close man hole	100%	0.5 days	16 Feb 16:00	17 Feb 4:00	ES			Wed 16	Thu 17
330	AH Fire fighting system test	100%	1 hr	16 Feb 16:00	16 Feb 17:00	OPS/SH			Wed 16	Wed 16
331	FGD absorber tank	100%	27 days	16 Jan 19:00	12 Feb 19:00	FGH			Sun 16	Mon 17
332	Open manhole	100%	1 day	16 Jan 19:00	17 Jan 19:00	FGH			Mon 17	Wed 19
333	Cleaning	100%	2 days	17 Jan 19:00	19 Jan 19:00	FGH			Wed 19	Fri 21
334	Install scaffolding	100%	2 days	19 Jan 19:00	21 Jan 19:00	ES			Fri 21	Thu 10
335	Inspection and repair outlet damper	100%	20 days	21 Jan 19:00	10 Feb 19:00	FGH			Thu 10	Sat 12
336	Remove scaffolding	100%	1.5 days	10 Feb 19:00	12 Feb 7:00	ES			Sat 12	Sat 12
337	Close manhole	100%	0.5 days	12 Feb 7:00	12 Feb 19:00	FGH			Sun 16	Tue 18
338	ESP plant	100%	36.67 days	16 Jan 19:00	22 Feb 11:00	FGH			Sun 16	Tue 18
339	Continued Rapping by OPS	100%	2 days	16 Jan 19:00	18 Jan 19:00	OPS			Sun 16	Tue 18
340	Manual transfer ash by OPS	100%	2 days	16 Jan 19:00	18 Jan 19:00	OPS			Sun 16	Tue 18
341	EP-B	100%	31.04 days	17 Jan 19:00	17 Feb 20:00	FGH			Mon 17	Tue 18
342	Vacuum truck cleaning	100%	0.75 days	17 Jan 19:00	18 Jan 13:00	OPS			Mon 17	Tue 18
343	Pre-Rapping test	100%	1 day	18 Jan 13:00	19 Jan 13:00	LV/FGH			Tue 18	Wed 19
344	Internal inspection for all Equipment as contract	100%	20 days	19 Jan 13:00	08 Feb 13:00	FGH			Wed 19	Tue 08
345	Install scaffolding for DE rapping shaft replacement	100%	2 days	23 Jan 8:00	25 Jan 8:00	ES			Sun 23	Tue 25
346	DE wire and CE plate inspection 100%	100%	8 days	19 Jan 13:00	27 Jan 13:00	FGH			Wed 19	Thu 27
347	Replace DE wire	100%	8 days	27 Jan 13:00	04 Feb 13:00	FGH			Thu 27	Fri 04
348	Replace DE hammer shaft, link and bushing 1S + 2S (Winc)	100%	15 days	25 Jan 8:00	09 Feb 8:00	FGH			Tue 25	Wed 09
349	Replace DE hammer shaft, link and bushing 3S + 4S (Option)	100%	6 days	03 Feb 8:00	09 Feb 8:00	FGH			Thu 03	Wed 09
350	DE rapping anvil	100%	8 days	03 Feb 8:00	11 Feb 8:00	FGH			Thu 03	Fri 11
351	DE transmission system + Crank alignment	100%	10 days	25 Jan 8:00	04 Feb 8:00	FGH			Tue 25	Fri 04
352	Remove scaffolding	100%	1.5 days	09 Feb 8:00	10 Feb 20:00	ES			Wed 09	Thu 10
353	Final inspection	100%	1 day	15 Feb 8:00	16 Feb 8:00	FGH			Thu 10	Wed 16
354	Final rapping test /Close man hole	100%	1 day	16 Feb 8:00	17 Feb 8:00	LV/FGH			Tue 16	Wed 17
355	Final Vacuum truck cleaning ESP hopper by OPS	100%	0.5 days	17 Feb 8:00	17 Feb 20:00	OPS			Wed 17	Thu 17
356	EP-A	100%	30.04 days	17 Jan 19:00	16 Feb 20:00	FGH			Thu 17	Thu 17
357	Vacuum truck cleaning	100%	0.75 days	17 Jan 19:00	18 Jan 13:00	OPS			Mon 17	Tue 18

Task

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Rolled Up Milestone

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Inactive Milestone

Inactive Summary

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Project: Major Outage

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ID	Task Name	% Complete	Duration	Start	Finish	RO	Dec	Jan	Feb	Mar
358	Pre-Rapping test	100%	1 day	18 Jan 13:00	19 Jan 13:00	LV/FGH		Tue 18	Wed 19	
359	Internal inspection for all Equipment as contract	100%	20 days	19 Jan 13:00	08 Feb 13:00	FGH		Wed 19	Tue 08	
360	Install scaffolding for DE rapping shaft replacement	100%	2 days	23 Jan 8:00	25 Jan 8:00	ES		Sun 28	Tue 25	
361	DE wire and CE plate inspection 100%	100%	8 days	19 Jan 13:00	27 Jan 13:00	FGH		Wed 19	Thu 27	
362	Replace DE wire	100%	8 days	27 Jan 13:00	04 Feb 13:00	FGH		Thu 27	Fri 04	
363	Replace DE hammer shaft, link and bushing 1S + 2S (Winc 100%	100%	15 days	25 Jan 8:00	09 Feb 8:00	FGH		Tue 25	Wed 09	
364	Replace DE hammer shaft, link and bushing 3S + 4S (Optio 100%	100%	6 days	03 Feb 8:00	09 Feb 8:00	FGH		Tue 03	Wed 09	
365	DE rapping anvil	100%	11 days	03 Feb 8:00	14 Feb 8:00	FGH		Tue 25	Mon 14	
366	DE transmission system + Crank alignment	100%	10 days	25 Jan 8:00	04 Feb 8:00	FGH		Tue 25	Fri 04	
367	Remove scaffolding	100%	1.5 days	09 Feb 8:00	10 Feb 20:00	ES		Wed 09	Thu 10	
368	Final inspection	100%	1 day	14 Feb 8:00	15 Feb 8:00	FGH		Mon 14	Tue 15	
369	Final rapping test	100%	1 day	15 Feb 8:00	16 Feb 8:00	LV/FGH		Tue 15	Wed 16	
370	Final Vacuum truck cleaning ESP hopper by OPS /Close man hole	100%	0.5 days	16 Feb 8:00	16 Feb 20:00	OPS		Wed 16	Wed 16	
371	Power up insulator heater	100%	12 hrs	17 Feb 20:00	18 Feb 8:00	LV/FGH		Thu 17	Fri 18	
372	HV Tr and Discharge electrode IR testing (7 hrs)	100%	7 hrs	18 Feb 8:00	18 Feb 15:00	LV		Fri 18	Fri 18	
373	Air load testing (4 hrs)	100%	4 hrs	18 Feb 15:00	18 Feb 19:00	LV		Fri 18	Fri 18	
374	ESP Hopper cleaning	100%	5 days	16 Feb 8:00	21 Feb 8:00	OPS		Wed 16	Mon 21	
375	Gas load test common with draft test	100%	2 hrs	22 Feb 9:00	22 Feb 11:00	LV		Wed 16	Mon 21	
376	Main Fan works	100%	35.04 days	16 Jan 19:00	20 Feb 20:00	FGH		Tue 22	Tue 22	
377	IDF A	100%	17.04 days	16 Jan 19:00	02 Feb 20:00	FGH		Sun 15	Mon 17	
378	Open manhole	100%	1 day	16 Jan 19:00	17 Jan 19:00	FGH		Mon 17	Tue 18	
379	Install scaffolding for inspection impeller and silencer	100%	1 day	17 Jan 19:00	18 Jan 19:00	ES		Tue 18	Thu 20	
380	Internal inspection by visual	100%	2 days	18 Jan 19:00	20 Jan 19:00	FGH		Thu 20	Fri 21	
381	No load test Motor	100%	15 hrs	20 Jan 17:00	21 Jan 8:00	HV		Fri 21	Tue 25	
382	Bearing Inspection	100%	4 days	21 Jan 8:00	25 Jan 8:00	FGH		Tue 25	Wed 26	
383	Remove scaffolding for inspection impeller and silencer	100%	1 day	25 Jan 8:00	26 Jan 8:00	ES		Wed 26	Wed 02	
384	Shaft Alignment	100%	7 days	26 Jan 8:00	02 Feb 8:00	FGH		Wed 02	Wed 02	
385	Close man-hole	100%	0.5 days	02 Feb 8:00	02 Feb 20:00	FGH , ES		Wed 02	Wed 02	
386	IDF-B	100%	21.79 days	17 Jan 5:00	08 Feb 0:00	FGH		Mon 17	Mon 17	
387	IDF-B service cooling down inside furnace	100%	7.79 days	17 Jan 5:00	25 Jan 0:00	OPS		Tue 25	Tue 25	
388	IDF start running for cooling down inside furnace	100%	0 days	17 Jan 5:00	17 Jan 5:00	OPS		Tue 25	Tue 25	
389	IDF stop running for cooling down inside furnace	100%	0 days	25 Jan 0:00	25 Jan 0:00	OPS		Wed 26	Thu 27	
390	Open manhole	100%	0.5 days	25 Jan 0:00	25 Jan 12:00	FGH		Wed 26	Wed 02	
391	Install scaffolding for inspection impeller and silencer	100%	1 day	25 Jan 12:00	26 Jan 12:00	ES		Wed 26	Thu 27	
392	Inspect Gear Coupling	100%	1 day	26 Jan 12:00	27 Jan 12:00	FGH		Thu 27	Sun 30	
393	Internal inspection	100%	7 days	26 Jan 12:00	02 Feb 12:00	FGH		Sun 30	Mon 07	
394	Bearing Inspection	100%	3 days	27 Jan 12:00	30 Jan 12:00	FGH		Mon 07	Mon 07	
395	Remove scaffolding for inspection impeller and silencer	100%	1 day	30 Jan 12:00	31 Jan 12:00	ES		Mon 07	Mon 07	
396	Shaft Alignment	100%	7 days	31 Jan 12:00	07 Feb 12:00	FGH		Mon 07	Mon 07	

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Finish-only

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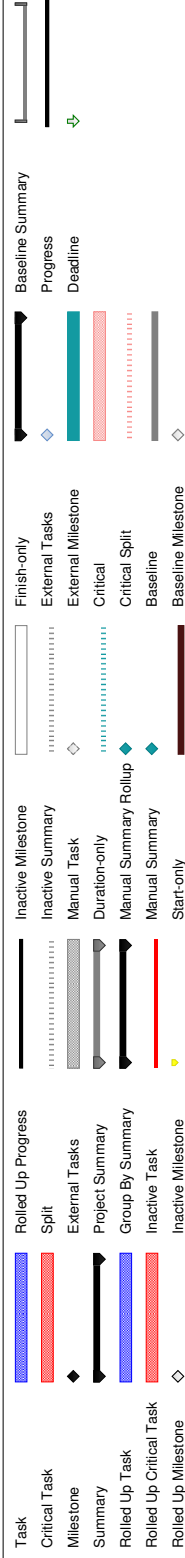
Baseline Milestone

Baseline Summary

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Deadline

ID	Task Name	% Complete	Duration	Start	Finish	RO	Dec	Jan	Feb	Mar
397	Close man-hold	100%	0.5 days	07 Feb 12:00	08 Feb 0:00	FGH, ES			Mon 07	Tue 08
398	PAF-A	100%	35.04 days	16 Jan 19:00	20 Feb 20:00	FGH				
399	Open manhole	100%	1 day	16 Jan 19:00	17 Jan 19:00	FGH			Mon 17	Tue 18
400	Inspect Gear Coupling	100%	2 days	17 Jan 19:00	19 Jan 19:00	FGH			Mon 17	Tue 18
401	Inspect Bearing	100%	6 days	19 Jan 19:00	25 Jan 19:00	FGH			Wed 19	Thu 20
402	Inspect Inside	100%	2 days	25 Jan 19:00	27 Jan 19:00	FGH			Tue 25	Wed 26
403	Inspect IG. V.	100%	2 days	27 Jan 19:00	29 Jan 19:00	FGH			Thu 27	Fri 28
404	Close manhole	100%	1 day	29 Jan 19:00	30 Jan 19:00	FGH			Sat 29	Sun 30
405	Test run	100%	1 hr	19 Feb 9:00	19 Feb 10:00	OPS/FGH/ES			Sat 19	Sun 20
406	Replace motor spare	100%	1.25 days	19 Feb 13:00	20 Feb 19:00	HV			Sat 19	Sun 20
407	Test run after replacement motor	100%	1 hr	20 Feb 19:00	20 Feb 20:00	OPS/FGH/ES/HV			Sat 19	Sun 20
408	PAF-B	100%	32.67 days	17 Jan 19:00	19 Feb 11:00	FGH				
409	Open manhole	100%	1 day	17 Jan 19:00	18 Jan 19:00	FGH			Mon 17	Tue 18
410	Inspect Gear Coupling	100%	2 days	19 Jan 19:00	21 Jan 19:00	FGH			Wed 19	Thu 20
411	Inspect Bearing	100%	3 days	25 Jan 19:00	28 Jan 19:00	FGH			Tue 25	Fri 26
412	Inspect Inside	100%	2 days	28 Jan 19:00	30 Jan 19:00	FGH			Fri 28	Sun 30
413	Inspect IG. V.	100%	2 days	30 Jan 19:00	01 Feb 19:00	FGH			Sun 30	Tue 01
414	Close manhole	100%	1 day	01 Feb 19:00	02 Feb 19:00	FGH			Tue 01	Wed 02
415	Test run	100%	1 hr	19 Feb 10:00	19 Feb 11:00	OPS/FGH/ES			Sat 19	Sun 20
416	FDF-A	100%	16.5 days	16 Jan 19:00	02 Feb 7:00	FGH				
417	Open manhole	100%	0.5 days	16 Jan 19:00	17 Jan 7:00	FGH, ES			Sun 16	Mon 17
418	Inspect Gear Coupling	100%	1 day	17 Jan 7:00	18 Jan 7:00	FGH			Mon 17	Tue 18
419	Inspect Bearing	100%	7 days	18 Jan 7:00	25 Jan 7:00	FGH			Tue 18	Wed 19
420	Inspect Inside	100%	2 days	25 Jan 7:00	27 Jan 7:00	FGH			Tue 25	Wed 26
421	Inspect IG. V.	100%	4 days	27 Jan 7:00	31 Jan 7:00	FGH			Thu 27	Mon 31
422	Close man-hold	100%	2 days	31 Jan 7:00	02 Feb 7:00	FGH, ES			Mon 31	Tue 01
423	FDF-B	100%	23 days	17 Jan 7:00	09 Feb 7:00	FGH				
424	Open manhole	100%	0.5 days	17 Jan 7:00	17 Jan 19:00	FGH, ES			Mon 17	Tue 18
425	Inspect Gear Coupling	100%	1 day	18 Jan 7:00	19 Jan 7:00	FGH			Tue 18	Wed 19
426	Inspect Bearing	100%	7 days	25 Jan 7:00	01 Feb 7:00	FGH			Tue 25	Wed 26
427	Inspect Inside	100%	2 days	01 Feb 7:00	03 Feb 7:00	FGH			Thu 01	Fri 02
428	Inspect IG. V.	100%	4 days	03 Feb 7:00	07 Feb 7:00	FGH			Tue 03	Wed 04
429	Close man-hold	100%	2 days	07 Feb 7:00	09 Feb 7:00	FGH, ES			Mon 07	Tue 08
430	BUF	100%	30 days	16 Jan 8:00	15 Feb 8:00	FGH				
431	BUF replacement spare	100%	30 days	16 Jan 8:00	15 Feb 8:00	FGH				
432	Open Manhole and Cooling Down	100%	2 days	16 Jan 8:00	18 Jan 8:00	ESCO			Sun 16	Mon 17
433	Install chain block and lifting tools	100%	2 days	17 Jan 8:00	19 Jan 8:00	ESCO			Mon 17	Tue 18
434	Measure gap inside	100%	1 day	18 Jan 8:00	19 Jan 8:00	ESCO			Tue 18	Wed 19
435	Dismantling the bend provided between the suction casing and impeller casing	100%	2 days	18 Jan 8:00	20 Jan 8:00	ESCO			Tue 18	Wed 19



ID	Task Name	% Complete	Duration	Start	Finish	RO	Dec	Jan	Feb	Mar
436	Dismantling bolts the suction inner casing and the impeller inner casing	100%	2 days	18 Jan 8:00	20 Jan 8:00	ESCO		Thu 18	Thu 20	
437	Dismantling bolts the inner and outer casing at flange joints	100%	2 days	20 Jan 8:00	22 Jan 8:00	ESCO		Thu 20	Sat 22	
438	Dismantling impeller casing and rear casing	100%	3 days	22 Jan 8:00	25 Jan 8:00	ESCO		Sat 22	Tue 25	
439	Install support the spacer inside the suction casing	100%	2 days	25 Jan 8:00	27 Jan 8:00	ESCO		Tue 25	Thu 27	
440	Dismantling the coupling and the seal plate	100%	2 days	26 Jan 8:00	28 Jan 8:00	ESCO		Wed 26	Fri 28	
441	Dismantling pilot valve and control oil supply line and connecting	100%	1 day	28 Jan 8:00	29 Jan 8:00	ESCO		Fri 28	Sat 29	
442	Remove rotor and bearing complete set on Support	100%	2 days	29 Jan 8:00	31 Jan 8:00	ESCO		Sat 29	Mon 31	
443	Remove rotor and bearing complete set to work shop	100%	2 days	31 Jan 8:00	02 Feb 8:00	ESCO		Mon 31	Wed 02	
444	Clean and inspect casing lower and seal	100%	2 days	26 Jan 8:00	28 Jan 8:00	ESCO		Wed 26	Fri 28	
445	Technical Advisor Remote Support	100%	26 days	20 Jan 8:00	15 Feb 8:00	MPW/ESCO		Mon 31		
446	Cleaning Work	100%	1 day	20 Jan 8:00	21 Jan 8:00	MPW/ESCO		Thu 20	Fri 21	
447	Install rotor and bearing complete set	100%	10 days	21 Jan 8:00	31 Jan 8:00	MPW/ESCO		Fri 21	Mon 31	
448	Install pilot valve and control oil supply line and connecting	100%	1 day	30 Jan 8:00	31 Jan 8:00	MPW/ESCO		Sun 30	Mon 31	
449	Oil Flushing after reinstate oil piping	100%	12 days	31 Jan 8:00	12 Feb 8:00	MPW/ESCO		Mon 31	Sat 12	
450	Install the coupling and Dismantling support spacer and Realignment	100%	10 days	01 Feb 8:00	11 Feb 8:00	MPW/ESCO		Tue 01	Fri 11	
451	Install the coupling and the seal plate	100%	1 day	11 Feb 8:00	12 Feb 8:00	MPW/ESCO		Fri 11	Sat 12	
452	Fuction Test - Blade Pit	100%	1 day	12 Feb 8:00	13 Feb 8:00	MPW/ESCO		Sat 12	Sun 13	
453	Install impeller casing and rear casing	100%	2 days	13 Feb 8:00	15 Feb 8:00	MPW/ESCO		Sun 13	Tue 15	
454	Close manhole	100%	1 day	14 Feb 8:00	15 Feb 8:00	MPW/ESCO		Mon 14	Tue 15	
455	Test run	100%	1 day	14 Feb 8:00	15 Feb 8:00	MPW/ESCO		Mon 14	Tue 15	
456	Steam Turbine Maintenance	100%	36.96 days	16 Jan 8:00	22 Feb 7:00	TB/EC&I		Sun 16	Wed 19	
457	Turning gear and cooling down	100%	3 days	16 Jan 8:00	19 Jan 8:00	TB		Mon 16	Tue 17	
458	Crossover pipe flange leakage rectification	100%	14 days	24 Jan 8:00	07 Feb 8:00	TB		Mon 24	Tue 25	
459	Remove insulation	100%	1 day	24 Jan 8:00	25 Jan 8:00	ES		Mon 24	Tue 25	
460	Remove all flange (IP-LP1, LP1-LP2, Top LP1, Top LP2)	100%	2 days	24 Jan 8:00	26 Jan 8:00	TB		Mon 24	Wed 26	
461	Replace gas ket for LP1-LP2	100%	2 days	26 Jan 8:00	28 Jan 8:00	TB		Wed 26	Fri 28	
462	Re-Torque for IP-LP1, Top LP1, Top LP2	100%	2 days	28 Jan 8:00	30 Jan 8:00	TB		Fri 28	Sun 30	
463	Spaghetti pipe flange inspection	100%	6 days	30 Jan 8:00	05 Feb 8:00	TB		Sun 30	Sat 05	
464	Install insulation	100%	2 days	05 Feb 8:00	07 Feb 8:00	TB		Sat 05	Mon 07	
465	L0 stellite strip inspection	100%	7 days	31 Jan 8:00	07 Feb 8:00	TB		Mon 31	Tue 01	
466	Open man hole for inspection	100%	1 day	31 Jan 8:00	01 Feb 8:00	TB		Mon 31	Tue 01	
467	Cool down	100%	2 days	01 Feb 8:00	03 Feb 8:00	OPS/TB		Tue 01	Thu 03	
468	Partial inspection	100%	3 days	03 Feb 8:00	06 Feb 8:00	TB		Thu 03	Sun 06	
469	Close man hole	100%	1 day	06 Feb 8:00	07 Feb 8:00	TB		Sun 06	Mon 07	
470	Inspection and overhaul Turbine steam admission valve	100%	36.96 days	16 Jan 8:00	22 Feb 7:00	TB		Sun 16	Mon 17	
471	Install scaffolding inside End closser	100%	1 day	16 Jan 8:00	17 Jan 8:00	ES		Mon 17		

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ID	Task Name	% Complete	Duration	Start	Finish	RO	Dec	Jan	Feb	Mar
472	Remove Top End closser	100%	5 hrs	17 Jan 8:00	17 Jan 13:00	TB		Mon 17		
473	Remove Instrument wiring	100%	5 hrs	17 Jan 13:00	17 Jan 18:00	C&I		Mon 17		
474	Scaffolding adjustment after end closser remove	100%	5 hrs	17 Jan 18:00	17 Jan 23:00	ES		Mon 17		
475	Remove insulation for all valve	100%	14 hrs	17 Jan 23:00	18 Jan 13:00	ES		Mon 17		
476	GV (No.1)	100%	11 days	18 Jan 8:00	29 Jan 8:00	TB		Tue 18		
477	Remove spring Box	100%	1 day	18 Jan 8:00	19 Jan 8:00	TB		Tue 18		
478	Remove bonnet	100%	1 day	19 Jan 8:00	20 Jan 8:00	TB		Wed 19		
479	Valve disassembly	100%	1 day	20 Jan 8:00	21 Jan 8:00	TB		Thu 20		
480	Cleaning/Lapping/Inspection	100%	5 days	21 Jan 8:00	26 Jan 8:00	TB		Fri 21		
481	Replace actuator valve	100%	3 days	21 Jan 8:00	24 Jan 8:00	TB		Fri 21		
482	Contact Check and Install	100%	5 days	23 Jan 8:00	28 Jan 8:00	TB		Sun 23		
483	Valve assembly and install	100%	5 days	24 Jan 8:00	29 Jan 8:00	TB		Mon 24		
484	GV (No.3)	100%	11 days	18 Jan 8:00	29 Jan 8:00	TB		Mon 24		
485	Remove spring Box	100%	1 day	18 Jan 8:00	19 Jan 8:00	TB		Tue 18		
486	Remove bonnet	100%	1 day	19 Jan 8:00	20 Jan 8:00	TB		Wed 19		
487	Valve disassembly	100%	1 day	20 Jan 8:00	21 Jan 8:00	TB		Thu 20		
488	Cleaning/Lapping/Inspection	100%	5 days	21 Jan 8:00	26 Jan 8:00	TB		Fri 21		
489	Replace actuator valve	100%	3 days	21 Jan 8:00	24 Jan 8:00	TB		Fri 21		
490	Contact Check and Install	100%	4 days	23 Jan 8:00	27 Jan 8:00	TB		Sun 23		
491	Valve assembly and install	100%	5 days	24 Jan 8:00	29 Jan 8:00	TB		Mon 24		
492	RSV (LH)	100%	11 days	19 Jan 8:00	30 Jan 8:00	TB		Mon 24		
493	Remove top cover	100%	1 day	19 Jan 8:00	20 Jan 8:00	TB		Wed 19		
494	Cooling down by air blow	100%	1 day	20 Jan 8:00	21 Jan 8:00	TB		Thu 20		
495	Remove side cover trip pilot side	100%	1 day	20 Jan 8:00	21 Jan 8:00	TB		Thu 20		
496	Valve disassembly	100%	1 day	20 Jan 8:00	21 Jan 8:00	TB		Thu 20		
497	Cleaning/Lapping/Inspection	100%	4 days	21 Jan 8:00	25 Jan 8:00	TB		Fri 21		
498	Replace actuator valve	100%	2 days	21 Jan 8:00	23 Jan 8:00	TB		Fri 21		
499	Contact Check and Install	100%	2 days	22 Jan 8:00	24 Jan 8:00	TB		Fri 21		
500	Valve assembly and install	100%	6 days	24 Jan 8:00	30 Jan 8:00	TB		Sat 22		
501	ICV (No.1) LH	100%	9 days	18 Jan 8:00	27 Jan 8:00	TB		Mon 24		
502	Remove spring Box	100%	1 day	18 Jan 8:00	19 Jan 8:00	TB		Tue 18		
503	Remove bonnet	100%	1 day	19 Jan 8:00	20 Jan 8:00	TB		Wed 19		
504	Valve disassembly	100%	1 day	20 Jan 8:00	21 Jan 8:00	TB		Thu 20		
505	Cleaning/Lapping/Inspection	100%	4 days	21 Jan 8:00	25 Jan 8:00	TB		Fri 21		
506	Contact Check and Install	100%	2 days	24 Jan 8:00	26 Jan 8:00	TB		Fri 21		
507	Valve assembly and install	100%	2 days	25 Jan 8:00	27 Jan 8:00	TB		Mon 24		
508	ICV (No.2) LH	100%	9 days	18 Jan 8:00	27 Jan 8:00	TB		Tue 18		
509	Remove spring Box	100%	1 day	18 Jan 8:00	19 Jan 8:00	TB		Tue 18		
510	Remove bonnet	100%	1 day	19 Jan 8:00	20 Jan 8:00	TB		Wed 19		
511	Valve disassembly	100%	1 day	20 Jan 8:00	21 Jan 8:00	TB		Thu 20		

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ID	Task Name	% Complete	Duration	Start	Finish	RO	Dec	Jan	Feb	Mar
512	Cleaning/Lapping/Inspection	100%	4 days	21 Jan 8:00	25 Jan 8:00	TB		Fri 21	Tue 25	
513	Contact Check and Install	100%	2 days	24 Jan 8:00	26 Jan 8:00	TB		Mon 24	Wed 26	
514	Valve assembly and install	100%	2 days	25 Jan 8:00	27 Jan 8:00	TB		Tue 25	Thu 27	
515	MSV (LH)	100%	12 days	18 Jan 8:00	30 Jan 8:00	TB				
516	Remove spring Box	100%	1 day	19 Jan 8:00	19 Jan 8:00	TB		Tue 19	Wed 19	
517	Remove bonnet	100%	1 day	18 Jan 8:00	20 Jan 8:00	TB		Wed 19	Thu 20	
518	Valve disassembly	100%	1 day	20 Jan 8:00	21 Jan 8:00	TB		Thu 20	Fri 21	
519	Cleaning/Lapping/Inspection	100%	5 days	21 Jan 8:00	26 Jan 8:00	TB		Fri 21	Wed 26	
520	Replace actuator valve	100%	3 days	21 Jan 8:00	24 Jan 8:00	TB		Fri 21	Mon 24	
521	Contact Check and Install	100%	4 days	23 Jan 8:00	27 Jan 8:00	TB		Sun 23	Thu 27	
522	Valve assembly and install	100%	6 days	24 Jan 8:00	30 Jan 8:00	TB		Mon 24	Sun 30	
523	Install insulation for all valve	100%	1 day	02 Feb 8:00	03 Feb 8:00	ES		Wed 02	Thu 03	
524	Install Top Enclosure (modification)	100%	0.5 days	03 Feb 8:00	03 Feb 20:00	TB		Thu 03	Thu 03	
525	Remove scaffolding	100%	6 hrs	03 Feb 20:00	04 Feb 2:00	ES		Thu 03	Fri 04	
526	EH oil flushing	100%	7 days	31 Jan 8:00	07 Feb 8:00	TB		Mon 31	Tue 01	
527	Install EH oil flushing box	100%	1 day	01 Feb 8:00	01 Feb 8:00	TB		Tue 01	Wed 02	
528	Pre-Start pump for leak test	100%	1 day	01 Feb 8:00	02 Feb 8:00	ES		Wed 02	Thu 03	
529	Start Main oil pump at Flushing cart and continue flushing	100%	1 day	02 Feb 8:00	03 Feb 8:00	ES		Wed 02	Thu 03	
530	Flushing continue and Check Particle count	100%	2 days	02 Feb 8:00	04 Feb 8:00	ES		Wed 02	Fri 04	
531	Final check	100%	1 day	04 Feb 8:00	05 Feb 8:00	ES		Fri 04	Sat 05	
532	Remove flushing Box and Install EH oil pipe	100%	2 days	05 Feb 8:00	07 Feb 8:00	TB		Sat 05	Mon 07	
533	T-BFP & Main steam Turbine Valve adjustment.	100%	18.54 days	03 Feb 18:00	22 Feb 7:00	ICT				
534	Drain water	100%	4 hrs	19 Feb 20:00	20 Feb 0:00	OPS				
535	Remove gag	100%	5 hrs	20 Feb 8:00	20 Feb 13:00	TB				
536	T-BFP Valve adjustment.	100%	1 day	03 Feb 18:00	04 Feb 18:00	C&I				
537	Steam Admission Turbine Valve adjustment.	100%	1.25 days	20 Feb 13:00	21 Feb 19:00	C&I				
538	Install insulation for Main steam valve	100%	0.5 days	21 Feb 19:00	22 Feb 7:00	ES				
539	Actuator valve RH side replacement	100%	11 days	20 Jan 8:00	31 Jan 8:00	TB				
540	Remove Thrust bearing for ICT check bad signal of metal temp.	100%	8 days	19 Jan 8:00	27 Jan 8:00	TB/ICT				
541	Remove insulation	100%	1 day	19 Jan 8:00	20 Jan 8:00	ES		Wed 19	Thu 20	
542	Remove pedestal cover	100%	1 day	20 Jan 8:00	21 Jan 8:00	TB		Thu 20	Fri 21	
543	Remove instrument wire	100%	1 day	21 Jan 8:00	22 Jan 8:00	ICT		Fri 21	Sat 22	
544	Disassembly thrust bearing	100%	2 days	21 Jan 8:00	23 Jan 8:00	TB		Fri 21	Sun 23	
545	NDT PT,MT	100%	1 day	22 Jan 8:00	23 Jan 8:00	TB		Sat 22	Sun 23	
546	ICT verify & replace wire as damage	100%	1 day	23 Jan 8:00	24 Jan 8:00	ICT		Sun 23	Mon 24	
547	Re-assembly & setting thrust bearing	100%	2 days	24 Jan 8:00	26 Jan 8:00	TB		Mon 24	Wed 26	
548	Re-assembly pedestal cover	100%	3 days	24 Jan 8:00	27 Jan 8:00	TB		Mon 24	Thu 27	
549	Turbine Bearing Lube Oil Flushing	100%	3 days	01 Feb 8:00	04 Feb 8:00	TB		Tue 01	Fri 04	
550	Turbine on turning	100%	1 day	11 Feb 8:00	12 Feb 8:00	TB/OPS		Fri 11	Sat 12	

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ID	Task Name	% Complete	Duration	Start	Finish	RO	Dec	Jan	Feb	Mar
551	Steam Turbine water ingress protection test	100%	8 hrs	12 Feb 8:00	12 Feb 16:00	C&I			Sat 12	
552	Condenser water box inspection	100%	28 days	16 Jan 8:00	13 Feb 8:00	TB				
553	Open man hole	100%	1 day	16 Jan 8:00	17 Jan 8:00	TB		Sun 16	Mon 17	
554	Install scaffolding	100%	2 days	17 Jan 8:00	19 Jan 8:00	ES		Mon 17	Wed 19	
555	Inspection & Repair rubber lining	100%	17 days	19 Jan 8:00	05 Feb 8:00	TB		Wed 19	Sat 05	
556	Inspection and replacement scaffical anode	100%	6 days	05 Feb 8:00	11 Feb 8:00	TB		Sat 05	Fri 11	
557	Remove scaffolding	100%	1 day	11 Feb 8:00	12 Feb 8:00	ES		Fri 11	Sat 12	
558	Final Inspection and close manhole	100%	1 day	12 Feb 8:00	13 Feb 8:00	TB		Sat 12	Sun 13	
559	Condenser Hot well inspection	100%	24.5 days	16 Jan 8:00	09 Feb 20:00	TB				
560	Open Manhole	100%	1 day	16 Jan 8:00	17 Jan 8:00	TB		Sun 16	Mon 17	
561	Support OPS cooling down Main steam turbine	100%	3 days	17 Jan 8:00	20 Jan 8:00	OPS/TB		Mon 17	Thu 20	
562	Hot well cleaning	100%	11 days	29 Jan 8:00	09 Feb 8:00	TB		Sat 29	Wed 09	
563	Final Inspection and close manhole	100%	0.5 days	09 Feb 8:00	09 Feb 20:00	TB+OPS		Wed 09	Wed 09	
564	RH spool pipe.	100%	32.75 days	20 Jan 8:00	22 Feb 2:00	TB				
565	Install scaffolding and remove insulation	100%	1 day	20 Jan 8:00	21 Jan 8:00	ES		Thu 20	Fri 21	
566	Remove spool pipe and install blind flange	100%	2 days	21 Jan 8:00	23 Jan 8:00	TB		Fri 21	Sun 23	
567	Drain water for RH system	100%	4 hrs	19 Feb 15:45	19 Feb 19:45	OPS		Sat 19	Sat 19	
568	Remove Blind Flange & Install RH spool pipe.	100%	1.25 days	20 Feb 8:00	21 Feb 14:00	TB		Sun 20	Mon 21	
569	Install insulation	100%	0.5 days	21 Feb 14:00	22 Feb 2:00	ES		Mon 21	Tue 22	
570	High pressure feed water heater	100%	29.25 days	16 Jan 8:00	14 Feb 14:00	TB				
571	No.6 HP feed water heater	100%	29.25 days	16 Jan 8:00	14 Feb 14:00	TB				
572	Remove diaphragm of manhole by machine	100%	2 days	16 Jan 8:00	18 Jan 8:00	TB		Sun 16	Tue 18	
573	cooling down & air blow	100%	2 days	17 Jan 8:00	19 Jan 8:00	TB		Mon 17	Wed 19	
574	Remove partition cover	100%	1 day	19 Jan 8:00	20 Jan 8:00	TB		Wed 19	Thu 20	
575	Remove perforated plate	100%	1 day	20 Jan 8:00	21 Jan 8:00	TB		Thu 20	Fri 21	
576	Tube cleaning	100%	8 days	21 Jan 8:00	29 Jan 8:00	TB		Fri 21	Sat 29	
577	Tube dry out by air blow	100%	2 days	29 Jan 8:00	31 Jan 8:00	TB		Sat 29	Mon 31	
578	NDT PT	100%	1 day	31 Jan 8:00	01 Feb 8:00	TB		Mon 31	Tue 01	
579	NDT RFT	100%	7 days	01 Feb 8:00	08 Feb 8:00	TB		Tue 01	Tue 08	
580	Pressure test on shell side by pressurize air 5 bar	100%	2 days	08 Feb 8:00	10 Feb 8:00	TB		Thu 08	Thu 10	
581	Assembly partition cover	100%	2 days	10 Feb 8:00	12 Feb 8:00	TB		Thu 10	Sat 12	
582	Assembly perforated pate	100%	2 days	12 Feb 8:00	12 Feb 8:00	TB		Thu 10	Sat 12	
583	Re-welding diaphragm of manhole & close manhole	100%	1.25 days	12 Feb 8:00	13 Feb 14:00	TB		Thu 10	Sat 12	
584	Pressure test on tube side by demin. Water 200 bar	100%	1 day	13 Feb 14:00	14 Feb 14:00	TB		Sat 12	Sun 13	
585	No.8 HP feed water heater	100%	29 days	16 Jan 8:00	14 Feb 8:00	TB		Sun 13	Mon 14	
586	Remove diaphragm of manhole by machine	100%	2 days	16 Jan 8:00	18 Jan 8:00	TB		Sun 16	Tue 18	
587	cooling down & air blow	100%	2 days	17 Jan 8:00	19 Jan 8:00	TB		Mon 17	Wed 19	
588	Remove partition cover	100%	1 day	19 Jan 8:00	20 Jan 8:00	TB		Wed 19	Thu 20	
589	Remove perforated plate	100%	1 day	20 Jan 8:00	21 Jan 8:00	TB		Thu 20	Fri 21	
590	Tube cleaning	100%	8 days	21 Jan 8:00	29 Jan 8:00	TB		Fri 21	Sat 29	

Task

Critical Task

Milestone

Summary

Rolled Up Task

Rolled Up Critical Task

Rolled Up Milestone

Rolled Up Progress

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Inactive Milestone

Inactive Milestone

Inactive Summary

Manual Task

Duration-only

Manual Summary Rollup

Manual Summary

Start-only

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External Tasks

External Milestone

Critical

Critical Split

Baseline

Baseline Milestone

Baseline Summary

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ID	Task Name	% Complete	Duration	Start	Finish	RO	Dec	Jan	Feb	Mar
591	Tube dry out by air blow	100%	2 days	29 Jan 8:00	31 Jan 8:00	TB		Sat 29	Mon 31	
592	NDT PT	100%	1 day	31 Jan 8:00	01 Feb 8:00	TB		Mon 31	Tue 01	
593	NDT RFT	100%	7 days	01 Feb 8:00	08 Feb 8:00	TB		Tue 01	Wed 09	
594	NDT IRIS	100%	1 day	08 Feb 8:00	09 Feb 8:00	TB		Tue 08	Wed 09	
595	Pressure test on shell side by pressurize air 5 bar	100%	1 day	09 Feb 8:00	10 Feb 8:00	TB		Wed 09	Thu 10	
596	Assembly partition cover	100%	2 days	10 Feb 8:00	12 Feb 8:00	TB		Thu 10	Sat 12	
597	Assembly perforated pate	100%	2 days	10 Feb 8:00	12 Feb 8:00	TB		Thu 10	Sat 12	
598	Re-welding diaphragm of manhole & close manhole	100%	1 day	12 Feb 8:00	13 Feb 8:00	TB		Sat 12	Sun 13	
599	Pressure test on tube side by demin. Water 200 bar	100%	1 day	13 Feb 8:00	14 Feb 8:00	TB		Sun 13	Mon 14	
600	CTCS ball strainer-A1,A2,B1,B2 Inspection grid strainer	100%	16 days	26 Jan 8:00	11 Feb 8:00	TB+ECT+OPS		Wed 26	Thu 27	
601	Open manhole (Complete)	100%	1 day	26 Jan 8:00	27 Jan 8:00	TB		Mon 31	Wed 02	
602	Internal inspection grid strainer by TB team	100%	2 days	31 Jan 8:00	02 Feb 8:00	TB		Wed 02	Fri 04	
603	Replace sacrificial anode by TB team	100%	2 days	02 Feb 8:00	04 Feb 8:00	TB		Fri 04	Sun 06	
604	Functional test grid strainer 3 party TB+ECT+OPS	100%	2 days	04 Feb 8:00	06 Feb 8:00	TB+ECT+OPS		Thu 10	Fri 11	
605	Close manhole	100%	1 day	10 Feb 8:00	11 Feb 8:00	TB		Sun 13	Mon 14	
606	Balance Of Plant Maintenance	100%	36.92 days	16 Jan 8:00	22 Feb 6:00	BOP		Sun 16	Tue 18	
607	Intake & Outfall	100%	27.5 days	16 Jan 8:00	12 Feb 20:00	BOP		Tue 18	Thu 20	
608	Close Stop log (Intake and inlet outfall) (Start at 13:00)	100%	2 days	16 Jan 8:00	18 Jan 8:00	BOP		Wed 19	Tue 25	
609	Yearly Inspection support of shock & continue diffuser (NaOCL) at intake pit 1A and 1B	100%	2 days	18 Jan 8:00	20 Jan 8:00	BOP		Thu 20		
610	Intake Pit A,B Burnacle, Shell and Mud at Floor and Clean Bar Screen	100%	6 days	19 Jan 8:00	25 Jan 8:00	BOP		Wed 25		
611	Travelling screen, CWP inspection , Recondition	100%	17 days	25 Jan 8:00	11 Feb 8:00	BOP		Tue 25	Wed 26	
612	Travelling screen A	100%	16 days	25 Jan 8:00	10 Feb 8:00	BOP/ES		Tue 25	Wed 26	
613	Remove screen panel	100%	1 day	25 Jan 8:00	26 Jan 8:00	BOP		Tue 26	Wed 27	
614	Install Scaffolding for Internal Inspection	100%	2 days	25 Jan 8:00	27 Jan 8:00	ES		Tue 27	Wed 28	
615	Inspection	100%	3 days	27 Jan 8:00	30 Jan 8:00	BOP		Wed 28	Thu 29	
616	Remove Scaffolding for Internal Inspection	100%	1 day	30 Jan 8:00	31 Jan 8:00	ES		Thu 29	Fri 30	
617	CWP inspection , Recondition	100%	10 days	31 Jan 8:00	10 Feb 8:00	BOP		Sun 30	Mon 31	
618	Travelling screen B	100%	16 days	26 Jan 8:00	11 Feb 8:00	BOP/ES		Mon 31	Thu 10	
619	Remove screen panel	100%	1 day	26 Jan 8:00	27 Jan 8:00	BOP		Wed 28	Thu 29	
620	Install Scaffolding for Internal Inspection	100%	2 days	27 Jan 8:00	29 Jan 8:00	ES		Thu 29	Sat 29	
621	Inspection	100%	3 days	29 Jan 8:00	01 Feb 8:00	BOP		Sat 29	Tue 01	
622	Remove Scaffolding for Internal Inspection	100%	1 day	01 Feb 8:00	02 Feb 8:00	ES		Tue 01	Wed 02	
623	CWP inspection , Recondition	100%	9 days	02 Feb 8:00	11 Feb 8:00	BOP		Wed 02	Fri 11	
624	Open Stop log	100%	1.5 days	11 Feb 8:00	12 Feb 20:00	BOP		Fri 11	Sat 12	
625	FGD System	100%	22 days	20 Jan 8:00	11 Feb 8:00	BOP		Mon 31	Thu 10	
626	FGD Canal Outfall U1 (Damage Area) , FRP Lining 2 Layer & Tissue 1 Layer	100%	10 days	31 Jan 8:00	10 Feb 8:00	BOP		Mon 31	Thu 10	
627	FGD Seawater Pump 1A , 1B, 1C (Replace Packing)	100%	6 days	03 Feb 8:00	09 Feb 8:00	BOP		Thu 03	Wed 09	

Task

Critical Task

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Rolled Up Critical Task

Rolled Up Milestone

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Inactive Milestone

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Manual Task

Duration-only

Manual Summary/Rollup

Manual Summary

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External Tasks

External Milestone

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ID	Task Name	% Complete	Duration	Start	Finish	RO	Dec	Jan	Feb	Mar
628	FGD Aeration Air Cooler 1A , 1B (Clean Inlet Strainer)	100%	2 days	06 Feb 8:00	08 Feb 8:00	BOP			Sun 06 Tue 08	
629	FGD Aeration Blower 1A, 1B, 1C, 1D (Clean Suction Filter)	100%	4 days	06 Feb 8:00	10 Feb 8:00	BOP			Sun 06 Thu 10	
630	FGD Aeration Air Filter 1A , 1B (Clean Filter)	100%	2 days	08 Feb 8:00	10 Feb 8:00	BOP			Tue 09 Thu 10	
631	Aeration Blower Pipe Air Diffuser U1, Inspection	100%	2 days	20 Jan 8:00	22 Jan 8:00	BOP			Thu 20 Sat 22	
632	Antiform Net U1, Replace New Net	100%	2 days	09 Feb 8:00	11 Feb 8:00	BOP			Wed 09 Fri 11	
633	CWP system	100%	10 days	31 Jan 8:00	10 Feb 8:00	BOP			Mon 31 Thu 10	
634	CWP Underground Pipe U1, Inspection (Coal Tar Painting at Damage Area)	100%	10 days	31 Jan 8:00	10 Feb 8:00	BOP				
635	Plate heat exchanger mechanical Cleaning and Replace gasket works	100%	16 days	16 Jan 8:00	01 Feb 8:00	BOP				
636	T-BFP A1/A2 , B1/B2 , Mechanical Cleaning, BFP-T Oil Cooler	100%	10 days	17 Jan 8:00	27 Jan 8:00	BOP			Mon 17 Thu 27	
637	CCCW cooler A; Mechanical Cleaning (must be informed Chemist to collect deposit scale from cooler plate for analysis).	100%	8 days	16 Jan 8:00	24 Jan 8:00	BOP			Sun 16 Mon 24	
638	CCCW cooler B; Mechanical Cleaning (must be informed Chemist to collect deposit scale from cooler plate for analysis).	100%	8 days	24 Jan 8:00	01 Feb 8:00	BOP			Mon 24 Tue 01	
639	Main Plant & Boiler Feed System	100%	35.92 days	17 Jan 8:00	22 Feb 6:00	BOP				
640	T-BFP-1A Mech.Seal Replacement	100%	9 days	18 Jan 8:00	27 Jan 8:00	BOP			Tue 18 Thu 27	
641	T-BFP-1B Mech.Seal Replacement	100%	5 days	24 Jan 8:00	30 Jan 0:00	BOP			Mon 24 Sun 30	
642	Deaeration & Storage Tank, Inspection, UTM	100%	8 days	19 Jan 8:00	27 Jan 8:00	BOP			Wed 19 Thu 27	
643	CEP 1B (Replace Packing, Clean Suction Strainer)	100%	3 days	20 Jan 8:00	23 Jan 8:00	BOP			Thu 20 Sun 23	
644	CCCW Pump 1A , 1B (Replace Packing)	100%	2 days	27 Jan 8:00	29 Jan 8:00	BOP			Thu 27 Sat 29	
645	Seawater Booster Pump 1A , 1B (Replace Packing, Clean Suction Strainer PHE)	100%	2 days	29 Jan 8:00	31 Jan 8:00	BOP			Sat 29 Mon 31	
646	Instrument Air System 1A , 1B (Replace Filter)	100%	1 day	30 Jan 8:00	31 Jan 8:00	BOP			Sun 30 Mon 31	
647	T-BFP Booster Pump A/B clean suction stainer and run. (During water preparation for Hydro-Test)	100%	4.75 days	17 Feb 10:00	22 Feb 6:00	OPS/BOP			Thu 17	
648	Overhaul BOP Valve	100%	10 days	17 Jan 8:00	27 Jan 8:00	BOP			Mon 17 Thu 27	
649	Generator Maintenance	100%	32.17 days	19 Jan 8:00	20 Feb 12:00	EC&/TB				
650	Off Turning Gear	100%	0 days	19 Jan 8:00	19 Jan 8:00	OPS			Wed 19 Thu 20	
651	Discharging of H2 Gas, Isolation of Electrical Source, Stopping Stator Coil Cooling Water, Discharging of Water Isolation of Cooling Water System, Water Draining of Gas Cooler	100%	1 day	19 Jan 8:00	20 Jan 8:00	OPS			Thu 20 Fri 21	
652	Robot Inspection	100%	13 days	20 Jan 8:00	02 Feb 8:00	HV			Thu 20 Fri 21	
653	Training for MARC	100%	1 day	20 Jan 8:00	21 Jan 8:00	HV/MELCO			Thu 20 Fri 21	
654	Disassembly of Man-Hole	100%	1 day	20 Jan 8:00	21 Jan 8:00	HV/TB			Thu 20 Fri 21	
655	Preparation of Inspection	100%	1 day	20 Jan 8:00	21 Jan 8:00	HV/MELCO			Thu 20 Fri 21	
656	EL-CID	100%	3 days	21 Jan 8:00	24 Jan 8:00	HV/MELCO			Fri 21 Mon 24	

Task

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Rolled Up Critical Task

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Inactive Milestone

Inactive Summary

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Manual Summary

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Finish-only

External Tasks

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Critical Split

Baseline

Baseline Milestone

Baseline Summary

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ID	Task Name	% Complete	Duration	Start	Finish	RO	Dec	Jan	Feb	Mar
658	Slot Tapping Test	100%	5 days	24 Jan 8:00	29 Jan 8:00	HV/MELCO		Mon 24	Sat 29	
659	Visual Inspection (by Camera)	100%	5 days	24 Jan 8:00	29 Jan 8:00	HV/MELCO		Mon 24	Sat 29	
660	Jacking oil , Lube oil preparation	100%	1 day	28 Jan 8:00	29 Jan 8:00	OPS		Fri 28	Sat 29	
661	Inspection Rotor cooling hole for H2	100%	3 days	29 Jan 8:00	01 Feb 8:00	HV/MELCO		Sat 29	Tue 01	
662	Assembly of Man-Hole	100%	1 day	01 Feb 8:00	02 Feb 8:00	HV/TB		Tue 01	Wed 02	
663	Exciter module replacement	100%	23 days	19 Jan 8:00	11 Feb 8:00	HV/TB		Wed 19	Thu 20	
664	Isolation of Electrical Source, Discharging of Exciter cooler water	100%	1 day	19 Jan 8:00	20 Jan 8:00	HV/TB		Wed 19	Thu 20	
665	Isolation of Cooling Water System, Water Draining of Gas Cooler	100%	1 day	19 Jan 8:00	20 Jan 8:00	HV/TB		Wed 19	Thu 20	
666	Disassembly of BL-Exc Housing	100%	1 day	20 Jan 8:00	21 Jan 8:00	HV/TB		Thu 20	Fri 21	
667	Discoupling between BL-Exc & Generator	100%	1 day	20 Jan 8:00	21 Jan 8:00	HV/MELCO		Thu 20	Fri 21	
668	Replacement of BL-Exciter Fuse & Diode (including clean-up parts)	100%	5 days	21 Jan 8:00	26 Jan 8:00	HV/MELCO		Fri 21	Wed 26	
669	Assembly of BL-Exciter Fuse	100%	3 days	26 Jan 8:00	29 Jan 8:00	HV/MELCO		Wed 26	Sat 29	
670	BL-EXC Electrical test (High voltage test)	100%	2 days	24 Jan 8:00	26 Jan 8:00	HV		Mon 24	Wed 26	
671	BL-EXC Electrical test (Reverse voltage application)	100%	3 days	29 Jan 8:00	01 Feb 8:00	HV		Sat 29	Tue 01	
672	Alignment between BL-Exc & Generator	100%	2 days	04 Feb 8:00	06 Feb 8:00	HV/MELCO		Fri 04	Sun 06	
673	Confirm data	100%	3 days	06 Feb 8:00	09 Feb 8:00	MELCO		Wed 09	Fri 11	
674	Assembly of BL-Exc Housing	100%	2 days	09 Feb 8:00	11 Feb 8:00	HV/MELCO		Wed 09	Fri 11	
675	Final Inspection	100%	2 days	09 Feb 8:00	11 Feb 8:00	HV/MELCO		Wed 09	Fri 11	
676	Generator air leakage testing (OPS preparation day time and night time start test)	100%	0.75 days	12 Feb 20:00	13 Feb 14:00	HV		Sat 12	Sun 13	
677	Hydrogen filling (~ 10 hrs)	100%	10 hrs	16 Feb 14:00	17 Feb 0:00	HV		Wed 16	Thu 17	
678	Stator coil water quality	100%	12 hrs	17 Feb 0:00	17 Feb 12:00	OPS		Thu 17	Thu 17	
679	On turning gear	100%	0.5 days	17 Feb 12:00	18 Feb 0:00	OPS		Thu 17	Fri 18	
680	Megger Test by Electrical	100%	4 hrs	20 Feb 8:00	20 Feb 12:00	HV		Sun 20	Sun 20	
681	Electrical HV Maintenance	100%	37.13 days	16 Jan 8:00	22 Feb 11:00	HV		Sun 16	Mon 17	
682	Generator Transformer - Gasket replacement	100%	36 days	16 Jan 8:00	21 Feb 8:00	HV		Sun 16	Mon 17	
683	Install scaffolding	100%	1 day	16 Jan 8:00	17 Jan 8:00	ES		Sun 16	Mon 17	
684	IPB	100%	34 days	17 Jan 8:00	20 Feb 8:00	HV		Mon 17	Thu 20	
685	GTR - IPB Interface disassembly	100%	3 days	19 Jan 8:00	22 Jan 8:00	HV		Wed 19	Sat 22	
686	IPB - IPB Interface disassembly	100%	3 days	19 Jan 8:00	22 Jan 8:00	HV		Wed 19	Sat 22	
687	GTR IPB Unit removing	100%	1 day	22 Jan 8:00	23 Jan 8:00	HV		Sat 22	Sun 23	
688	Temporary placing	100%	1 day	22 Jan 8:00	23 Jan 8:00	HV		Sat 22	Sun 23	
689	Curing cover	100%	1 day	22 Jan 8:00	23 Jan 8:00	HV		Sat 22	Sun 23	
690	GTR IPB Terminal disassembly	100%	2 days	23 Jan 8:00	25 Jan 8:00	HV		Sun 23	Tue 25	
691	Reused parts cleaning	100%	4 days	25 Jan 8:00	29 Jan 8:00	HV		Tue 25	Sat 29	
692	Scaffolding as required for IPB reassembly	100%	6 days	08 Feb 8:00	14 Feb 8:00	HV		Tue 08	Mon 14	
693	GTR IPB Unit re-installing	100%	1 day	09 Feb 8:00	10 Feb 8:00	HV		Wed 09	Thu 10	

Task

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External Tasks

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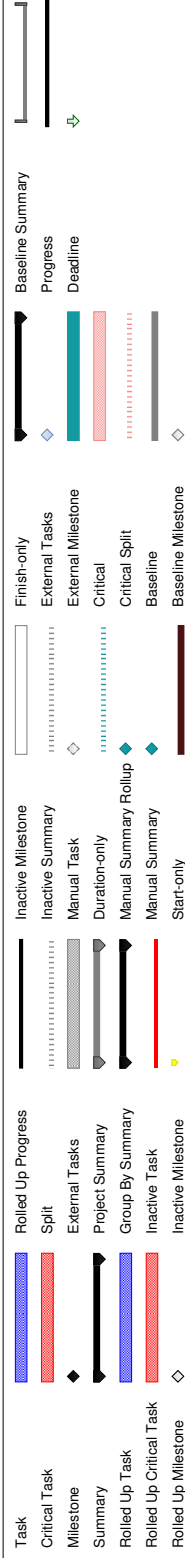
Project: Major Outage

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2022 unit 1 Draft Outage Schedule

ID	Task Name	% Complete	Duration	Start	Finish	RO
694	GTR IPB Unit alignment	100%	1 day	09 Feb 8:00	10 Feb 8:00	HV
695	IPB - IPB Interface assembly	100%	4 days	10 Feb 8:00	14 Feb 8:00	HV
696	GTR - IPB Terminal reassembly	100%	2 days	14 Feb 8:00	16 Feb 8:00	HV
697	GTR - IPB Interface assembly	100%	4 days	16 Feb 8:00	20 Feb 8:00	HV
698	GIS	100%	33 days	17 Jan 8:00	19 Feb 8:00	HV
699	Preparation work (Organized & equipment)	100%	1 day	17 Jan 8:00	18 Jan 8:00	HV
700	Degas of BSG tank to atmosphere	100%	1 day	18 Jan 8:00	19 Jan 8:00	HV
701	Degas of adjacent BSG tank to 0.05Mpa	100%	1 day	18 Jan 8:00	19 Jan 8:00	HV
702	Disconnecting of GIS internal conductor of BSG	100%	1 day	19 Jan 8:00	20 Jan 8:00	HV
703	Disconnecting of BSG tank with TR tank (Removing existing HVL-Bushing)	100%	1 day	24 Jan 8:00	25 Jan 8:00	HV
704	Disconnecting of BSG tank from TR tank (Removing existing HVL-Bushing)	100%	1 day	24 Jan 20:00	25 Jan 20:00	HV
705	Connecting of temporary cover	100%	1 day	25 Jan 8:00	26 Jan 8:00	HV
706	Disconnecting of temporary cover	100%	1 day	28 Jan 8:00	29 Jan 8:00	HV
707	Reconnecting of BSG tank to TR tank (Attaching new HVL-Bushing)	100%	1 day	28 Jan 20:00	29 Jan 20:00	HV
708	Reconnecting of BSG tank and TR tank (Attaching new HVL-Bushing)	100%	1 day	29 Jan 8:00	30 Jan 8:00	HV
709	Reconnecting of GIS internal conductor	100%	1 day	14 Feb 8:00	15 Feb 8:00	HV
710	Functional test	100%	1 day	15 Feb 8:00	16 Feb 8:00	HV
711	Replacement of absorbent & Filling of SF6 gas	100%	1 day	16 Feb 8:00	17 Feb 8:00	HV
712	Functional test	100%	2 days	17 Feb 8:00	19 Feb 8:00	HV
713	Transformer	100%	33 days	19 Jan 8:00	21 Feb 8:00	HV
714	Checking transformer condition	100%	3 days	19 Jan 8:00	22 Jan 8:00	HV
715	Draining insulation oil from TR body	100%	1 day	22 Jan 8:00	23 Jan 8:00	HV
716	Disassembling aux.wiring	100%	3 days	22 Jan 8:00	25 Jan 8:00	HV
717	Disassembling air release pipes & oil cooling pipes	100%	4 days	24 Jan 8:00	28 Jan 8:00	HV
718	Flange cleaning	100%	6 days	25 Jan 8:00	31 Jan 8:00	HV
719	Assembling air release pipes & oil cooling pipes with new gasket	100%	5 days	27 Jan 8:00	01 Feb 8:00	HV
720	No.1 & 2 OLTG work	100%	7 days	25 Jan 8:00	01 Feb 8:00	HV
721	Assembling aux.wiring	100%	6 days	01 Feb 8:00	07 Feb 8:00	HV
722	Preparation for TR tank inside work	100%	1 day	22 Jan 8:00	23 Jan 8:00	HV
723	Disconnecting TR inner lead (For HVL, HVN, LV)	100%	3 days	23 Jan 8:00	26 Jan 8:00	HV
724	Replacement of HVL-bushing	100%	2 days	26 Jan 8:00	28 Jan 8:00	HV
725	Removing HVN & LV-bushing	100%	2 days	26 Jan 8:00	28 Jan 8:00	HV
726	Attaching HVN & LV-bushing	100%	2 days	28 Jan 8:00	30 Jan 8:00	HV
727	Connecting TR inner lead with inside inspection	100%	4 days	28 Jan 8:00	01 Feb 8:00	HV
728	Oil filling & Oil leakage test (More than 24hrs)	100%	2 days	01 Feb 8:00	03 Feb 8:00	HV
729	Draining all insulation for final oil treatment	100%	1 day	03 Feb 8:00	04 Feb 8:00	HV

ID	Task Name	% Complete	Duration	Start	Finish	RO	Dec	Jan	Feb	Mar
730	Pulling vacuum (Less than 0.5Torr) & Keeping vacuum (More than 8hrs) → Note (*5)	100%	3 days	04 Feb 8:00	07 Feb 8:00	HV			Fri 04	Mon 07
731	Final oil filling under vacuum → Note (*5)	100%	2 days	07 Feb 8:00	09 Feb 8:00	HV			Mon 07	Wed 09
732	Oil circulation (More than 2cycles) → Note (*5)	100%	1 day	09 Feb 8:00	10 Feb 8:00	HV			Wed 09	Thu 10
733	Oil stabilization (More than 72hrs)	100%	3 days	10 Feb 8:00	13 Feb 8:00	HV			Thu 10	Sun 13
734	Checking transformer condition	100%	8 days	09 Feb 8:00	17 Feb 8:00	HV			Wed 09	Thu 17
735	Site cleaning & Report	100%	1 day	20 Feb 8:00	21 Feb 8:00	HV			Sun 20	Mon 21
736	Unit Transformer - Gasket replacement	100%	18 days	16 Jan 8:00	03 Feb 8:00	HV				
737	IPB	100%	18 days	16 Jan 8:00	03 Feb 8:00	HV				
738	Preparation & Meeting (for UTR IPB)	100%	1 day	16 Jan 8:00	17 Jan 8:00	HV			Sun 16	Mon 17
739	Disassembling UTR-IPB flexible conductor	100%	0.25 days	17 Jan 8:00	17 Jan 14:00	HV			Mon 17	Mon 17
740	Removing IPB rubber bellows	100%	0.75 days	17 Jan 14:00	18 Jan 8:00	HV			Mon 17	Tue 18
741	Reused parts cleaning	100%	2 days	18 Jan 8:00	20 Jan 8:00	HV			Tue 18	Thu 20
742	Removing IPB adapter	100%	1 day	21 Jan 20:00	22 Jan 20:00	HV			Fri 21	Sat 22
743	Attaching IPB adapter	100%	1 day	23 Jan 8:00	24 Jan 8:00	HV			Sun 23	Mon 24
744	Reassembling UTR-IPB flexible conductor	100%	0.25 days	02 Feb 8:00	02 Feb 14:00	HV			Wed 02	Wed 02
745	Attaching IPB rubber bellows	100%	0.75 days	02 Feb 14:00	03 Feb 8:00	HV			Wed 02	Thu 03
746	Transformer	100%	17 days	17 Jan 8:00	03 Feb 8:00	HV				
747	Transformer condition check before work	100%	0.5 days	17 Jan 8:00	17 Jan 20:00	HV			Mon 17	Mon 17
748	Draining insulation oil from TR body → Note (*2)	100%	0.5 days	17 Jan 20:00	18 Jan 8:00	HV			Mon 17	Tue 18
749	Disconnecting BCT wiring / Reconnecting BCT wiring	100%	0.5 days	17 Jan 20:00	18 Jan 8:00	HV			Mon 17	Tue 18
750	Disassembling aux. wiring	100%	1.5 days	17 Jan 20:00	19 Jan 8:00	HV			Mon 17	Wed 19
751	Removing radiator and disassembling oil cooling pipes (Cleaning flanges)	100%	3 days	19 Jan 8:00	22 Jan 8:00	HV			Wed 19	Sat 22
752	Preparation for TR tank inside work	100%	0.5 days	19 Jan 8:00	19 Jan 20:00	HV			Wed 19	Wed 19
753	Disconnection of TR inner lead (HV / LVL & LVN)	100%	2.5 days	19 Jan 20:00	22 Jan 8:00	HV			Wed 19	Sat 22
754	Removing existing LVL & LVN-bushing	100%	0.5 days	19 Jan 20:00	20 Jan 8:00	HV			Wed 19	Thu 20
755	Flange Cleaning	100%	0.75 days	20 Jan 8:00	21 Jan 2:00	HV			Thu 20	Fri 21
756	Installing new LVL & LVN-bushing	100%	0.5 days	21 Jan 2:00	21 Jan 14:00	HV			Fri 21	Fri 21
757	Removing existing HV-bushing and pulling out from IPB inspection hole	100%	1 day	21 Jan 14:00	22 Jan 14:00	HV			Fri 21	Sat 22
758	Removing HV bushing case	100%	0.75 days	22 Jan 14:00	23 Jan 8:00	HV			Sat 22	Sun 23
759	Attaching HV bushing case with new gasket	100%	0.5 days	23 Jan 2:00	23 Jan 14:00	HV			Sun 23	Sun 23
760	Installing new HV-bushing	100%	0.75 days	23 Jan 14:00	24 Jan 8:00	HV			Sun 23	Mon 24
761	Reconnection of TR inner lead (HV / LVL & LVN)	100%	1 day	23 Jan 8:00	24 Jan 8:00	HV			Sun 23	Mon 24
762	Assembling oil cooling pipes and attaching radiator	100%	2.5 days	23 Jan 20:00	26 Jan 8:00	HV			Sun 23	Wed 26
763	Gasket replacement for connecting pipes & protective relays → Note (*3)	100%	1.5 days	26 Jan 8:00	27 Jan 20:00	HV			Wed 26	Thu 27
764	Assembling aux. wiring	100%	1.5 days	27 Jan 20:00	29 Jan 8:00	HV			Thu 27	Sat 29
765	Oil filling & Oil leakage test (More than 24hrs)	100%	1 day	29 Jan 8:00	30 Jan 8:00	HV			Sat 29	Sun 30



ID	Task Name	% Complete	Duration	Start	Finish	RO	Dec	Jan	Feb	Mar
766	Draining all insulation for final oil treatment	100%	0.5 days	30 Jan 8:00	30 Jan 20:00	HV		Sun 30		
767	Pulling vacuum (Less than 5Torr) & Keeping vacuum (More than 4hrs)	100%	0.5 days	30 Jan 20:00	31 Jan 8:00	HV		Sun 30		
768	Final oil filling under vacuum	100%	1.25 days	31 Jan 8:00	01 Feb 14:00	HV		Mon 31		
769	Oil stabilization (More than 6hrs)	100%	0.75 days	01 Feb 14:00	02 Feb 8:00	HV		Tue 01		
770	Transformer condition check after work	100%	1.75 days	01 Feb 14:00	03 Feb 8:00	HV		Tue 01		
771	Reassembling UTR-IPB flexible conductor	100%	0.25 days	02 Feb 8:00	02 Feb 14:00	HV		Wed 02		
772	Attaching IPB rubber bellows	100%	0.75 days	02 Feb 14:00	03 Feb 8:00	HV		Wed 02		
773	Station Transformer	100%	17 days	03 Feb 8:00	20 Feb 8:00	HV		Thu 03		
774	IPB	100%	17 days	03 Feb 8:00	20 Feb 8:00	HV		Thu 03		
775	Disassembling STR-IPB flexible conductor	100%	0.25 days	03 Feb 8:00	03 Feb 14:00	HV		Thu 03		
776	Removing IPB rubber bellows	100%	0.75 days	03 Feb 14:00	04 Feb 8:00	HV		Fri 04		
777	IPB curing cover & Reused parts cleaning	100%	2 days	04 Feb 8:00	06 Feb 8:00	HV		Fri 04		
778	Checking transformer condition	100%	0.5 days	03 Feb 8:00	03 Feb 20:00	HV		Thu 03		
779	Draining insulation oil from TR body → Note (*2)	100%	0.5 days	03 Feb 20:00	04 Feb 8:00	HV		Thu 03		
780	Disconnecting BCT wiring / Reconnecting BCT wiring	100%	0.5 days	03 Feb 20:00	04 Feb 8:00	HV		Thu 03		
781	Disassembling aux wiring	100%	1.5 days	03 Feb 20:00	05 Feb 8:00	HV		Thu 03		
782	Removing radiator and disassembling oil cooling pipes (Cleaning flanges)	100%	16 days	04 Feb 8:00	20 Feb 8:00	HV		Fri 04		
783	Preparation for TR inside work	100%	1 day	04 Feb 8:00	05 Feb 8:00	HV		Fri 04		
784	Disconnecting TR inner lead (HV / LVL & LVN)	100%	2 days	03 Feb 8:00	05 Feb 8:00	HV		Thu 03		
785	Bay2 500kV GIS	100%	20 days	16 Jan 8:00	05 Feb 8:00	HV		Mon 17		
786	Install Schafold	100%	1 day	16 Jan 8:00	17 Jan 8:00	ES		Sun 16		
787	Oil sampling for OF cable	100%	1 day	19 Jan 8:00	20 Jan 8:00	TADS		Wed 19		
788	Test relay & Meter	100%	2 days	17 Jan 8:00	19 Jan 8:00	TADS		Mon 17		
789	Clean & Inspect GIS	100%	1 day	17 Jan 8:00	18 Jan 8:00	TADS		Mon 17		
790	Clean & Inspect OF Cable	100%	2 days	18 Jan 8:00	20 Jan 8:00	TADS		Tue 18		
791	Test PT (Dc resistance & Ratio)	100%	1 day	20 Jan 8:00	21 Jan 8:00	TADS		Tue 20		
792	IR Test 500kV Circuit	100%	1 day	03 Feb 8:00	04 Feb 8:00	TADS		Thu 03		
793	Remove schafold	100%	1 day	04 Feb 8:00	05 Feb 8:00	ES		Fri 04		
794	500kV GIS BSG at Gen TR	100%	19 days	16 Jan 8:00	04 Feb 8:00	HV		Mon 17		
795	Degassing SF6 & Disconnect GIS internal conductor	100%	3 days	16 Jan 8:00	19 Jan 8:00	TADS		Sun 16		
796	Disconnect BSG tank with TR tank	100%	2 days	16 Jan 8:00	18 Jan 8:00	TADS		Sun 16		
797	Disconnect temporary cover & Reconnect BSG tank	100%	2 days	16 Jan 8:00	18 Jan 8:00	TADS		Sun 16		
798	Reconnect GIS internal conductor	100%	1 day	30 Jan 8:00	31 Jan 8:00	TADS		Tue 18		
799	Function test	100%	4 days	31 Jan 8:00	04 Feb 8:00	TADS		Mon 31		
800	Replace absorbent and fill SF6	100%	1 day	01 Feb 8:00	02 Feb 8:00	TADS		Tue 01		
801	Unit1 11kV Motor (Overhaul)	100%	37.13 days	16 Jan 8:00	22 Feb 11:00	HV		Mon 31		
802	Dismount Motor	100%	9.67 days	16 Jan 8:00	26 Jan 0:00	HV		Tue 02		
803	CEP-A&B (remove grating)	100%	1 day	16 Jan 8:00	17 Jan 8:00	HV		Mon 17		

Task

Critical Task

Milestone

Summary

Rolled Up Task

Rolled Up Critical Task

Rolled Up Milestone

Rolled Up Progress

Split

External Tasks

Project Summary

Group By Summary

Inactive Task

Inactive Milestone

Inactive Milestone

Inactive Summary

Manual Task

Duration-only

Manual Summary Rollup

Manual Summary

Start-only

Finish-only

External Tasks

External Milestone

Critical

Critical Split

Baseline

Baseline Milestone

Baseline Summary

Progress

Deadline

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ID	Task Name	% Complete	Duration	Start	Finish	RO	Dec	Jan	Feb	Mar
804	CEP-A&B	100%	1 day	17 Jan 8:00	18 Jan 8:00	HV		Mon 17	Tue 18	
805	CP-B (use spare)	100%	1 day	19 Jan 8:00	20 Jan 8:00	HV		Wed 19	Thu 20	
806	CP-C	100%	1 day	19 Jan 8:00	20 Jan 8:00	HV		Wed 19	Thu 20	
807	CP-D	100%	1 day	20 Jan 8:00	21 Jan 8:00	HV		Thu 20	Fri 21	
808	CP-E	100%	1 day	20 Jan 8:00	21 Jan 8:00	HV		Thu 20	Fri 21	
809	CP-F	100%	1 day	20 Jan 8:00	21 Jan 8:00	HV		Thu 20	Fri 21	
810	CCCWP-A	100%	1 day	18 Jan 8:00	19 Jan 8:00	HV		Tue 18	Wed 19	
811	IDF-B (use spare)	100%	1 day	25 Jan 0:00	26 Jan 0:00	HV		Tue 25	Wed 26	
812	CWP-B	100%	3 days	17 Jan 8:00	20 Jan 8:00	HV		Mon 17	Tue 20	
813	Overhaul at Work Shop	100%	12 days	17 Jan 8:00	29 Jan 8:00	HV		Mon 17	Tue 25	
814	CEP-A	100%	8 days	17 Jan 8:00	25 Jan 8:00	HV		Mon 17	Tue 25	
815	CEP-B	100%	8 days	18 Jan 8:00	26 Jan 8:00	HV		Tue 18	Wed 26	
816	CP-B	100%	8 days	20 Jan 8:00	28 Jan 8:00	HV		Thu 20	Fri 28	
817	CP-C	100%	8 days	20 Jan 8:00	28 Jan 8:00	HV		Thu 20	Fri 28	
818	CP-D	100%	8 days	21 Jan 8:00	29 Jan 8:00	HV		Fri 21	Sat 29	
819	CP-E	100%	8 days	21 Jan 8:00	29 Jan 8:00	HV		Fri 21	Sat 29	
820	CP-F	100%	8 days	21 Jan 8:00	29 Jan 8:00	HV		Fri 21	Sat 29	
821	CCCWP-A	100%	8 days	19 Jan 8:00	27 Jan 8:00	HV		Wed 19	Thu 27	
822	Install Motor	100%	10.67 days	16 Jan 8:00	27 Jan 0:00	HV		Sun 16	Mon 17	
823	CP-B (by spare)	100%	1 day	16 Jan 8:00	17 Jan 8:00	HV		Sun 16	Mon 17	
824	CP-C	100%	1 day	16 Jan 8:00	17 Jan 8:00	HV		Sun 16	Mon 17	
825	CP-D	100%	1 day	16 Jan 8:00	17 Jan 8:00	HV		Sun 16	Mon 17	
826	CP-E	100%	1 day	16 Jan 8:00	17 Jan 8:00	HV		Sun 16	Mon 17	
827	CP-F	100%	1 day	16 Jan 8:00	17 Jan 8:00	HV		Sun 16	Mon 17	
828	CEP-A	100%	2 days	16 Jan 8:00	18 Jan 8:00	HV		Sun 16	Tue 18	
829	CEP-B	100%	1 day	18 Jan 8:00	19 Jan 8:00	HV		Tue 18	Wed 19	
830	CCCWP-A	100%	1 day	19 Jan 8:00	20 Jan 8:00	HV		Wed 19	Thu 20	
831	IDF-B (use spare)	100%	1 day	26 Jan 0:00	27 Jan 0:00	HV		Wed 26	Thu 27	
832	CWP-B (use spare)	100%	1 day	16 Jan 8:00	17 Jan 8:00	HV		Sun 16	Mon 17	
833	Alignment	100%	11 days	16 Jan 8:00	27 Jan 8:00	HV		Sun 16	Tue 25	
834	CP-B (by spare)	100%	1 day	25 Jan 8:00	26 Jan 8:00	HV		Tue 25	Wed 26	
835	CP-C	100%	1 day	25 Jan 8:00	26 Jan 8:00	HV		Tue 25	Wed 26	
836	CP-D	100%	1 day	26 Jan 8:00	27 Jan 8:00	HV		Wed 26	Thu 27	
837	CP-E	100%	1 day	26 Jan 8:00	27 Jan 8:00	HV		Wed 26	Thu 27	
838	CP-F (by Mechanic)	100%	1 day	19 Jan 8:00	20 Jan 8:00	HV		Wed 19	Thu 20	
839	CEP-A (by Mechanic)	100%	1 day	16 Jan 8:00	17 Jan 8:00	HV		Sun 16	Mon 17	
840	CEP-B (by Mechanic)	100%	1 day	17 Jan 8:00	18 Jan 8:00	HV		Mon 17	Tue 18	
841	CCCWP-A	100%	1 day	16 Jan 8:00	17 Jan 8:00	HV		Sun 16	Mon 17	
842	CWP-B (use spare)	100%	1 day	17 Jan 8:00	18 Jan 8:00	HV		Mon 17	Tue 18	
843	Noload test & re-connect coupling	100%	17 days	17 Jan 8:00	03 Feb 8:00	HV		Mon 17	Tue 18	



ID	Task Name	% Complete	Duration	Start	Finish	RO	Dec	Jan	Feb	Mar
844	CP-B (by spare)	100%	1 day	25 Jan 8:00	26 Jan 8:00	HV		Tue 25	Wed 26	
845	CP-C	100%	1 day	25 Jan 8:00	26 Jan 8:00	HV		Tue 25	Wed 26	
846	CP-D	100%	1 day	02 Feb 8:00	03 Feb 8:00	HV		Wed 02	Thu 03	
847	CP-E	100%	1 day	02 Feb 8:00	03 Feb 8:00	HV		Wed 02	Thu 03	
848	CP-F	100%	1 day	19 Jan 8:00	20 Jan 8:00	HV		Wed 19	Thu 20	
849	CEP-A	100%	1 day	29 Jan 8:00	30 Jan 8:00	HV		Sat 29	Sun 30	
850	CEP-B	100%	1 day	29 Jan 8:00	30 Jan 8:00	HV		Sat 29	Sun 30	
851	CCCWP-A	100%	1 day	17 Jan 8:00	18 Jan 8:00	HV		Mon 17	Tue 18	
852	CWP-B (use spare)	100%	1 day	17 Jan 8:00	18 Jan 8:00	HV		Mon 17	Tue 18	
853	Load test MV motor during start up plant	100%	2 hrs	22 Feb 9:00	22 Feb 11:00	HV				Tue 22
854	Unit1 FGD SWGR	100%	4 days	10 Feb 8:00	14 Feb 8:00	HV				Thu 10
855	Clean & Inspect	100%	3 days	10 Feb 8:00	13 Feb 8:00	HV				Sun 13
856	IR test	100%	1 day	13 Feb 8:00	14 Feb 8:00	HV				Mon 14
857	Unit1 SWGR- A	100%	4 days	20 Jan 8:00	24 Jan 8:00	HV				
858	Clean & Inspect	100%	3 days	20 Jan 8:00	23 Jan 8:00	HV				Thu 20
859	IR test	100%	1 day	23 Jan 8:00	24 Jan 8:00	HV				Sun 23
860	Unit1 SWGR-B	100%	4 days	06 Feb 8:00	10 Feb 8:00	HV				Mon 24
861	Clean & Inspect	100%	3 days	06 Feb 8:00	09 Feb 8:00	HV				Sun 23
862	IR test	100%	1 day	09 Feb 8:00	10 Feb 8:00	HV				Mon 24
863	Unit1 11kV Motor (Inspection)	100%	29 days	16 Jan 8:00	14 Feb 8:00	HV				Sun 06
864	SWGR-A Motor	100%	4 days	16 Jan 8:00	20 Jan 8:00	HV				Wed 09
865	-Clean & Inspect	100%	2 days	16 Jan 8:00	18 Jan 8:00	HV				Thu 10
866	-IR , PI , PD , PF test	100%	4 days	16 Jan 8:00	20 Jan 8:00	HV				Wed 09
867	FGD Motor	100%	4 days	10 Feb 8:00	14 Feb 8:00	HV				Thu 10
868	-Clean & Inspect	100%	2 days	10 Feb 8:00	12 Feb 8:00	HV				Sat 12
869	-IR , PI , PD , PF test	100%	2 days	12 Feb 8:00	14 Feb 8:00	HV				Mon 14
870	SWGR-B Motor	100%	4 days	24 Jan 8:00	28 Jan 8:00	HV				Mon 24
871	-Clean & Inspect	100%	2 days	24 Jan 8:00	26 Jan 8:00	HV				Wed 26
872	-IR , PI , PD , PF test	100%	4 days	24 Jan 8:00	28 Jan 8:00	HV				Mon 24
873	DCS Maintenance	100%	36 days	16 Jan 8:00	21 Feb 8:00	ICT				
874	Instrument maintenance	100%	33 days	16 Jan 8:00	18 Feb 8:00	ICT				
875	Field instrument calibration	100%	30 days	17 Jan 8:00	16 Feb 8:00	ICT				Mon 17
876	Turbine/BOP/FAN Vibration inspect and testing	100%	18 days	18 Jan 8:00	05 Feb 8:00	ICT				Tue 18
877	Igniter inspect and testing	100%	30 days	17 Jan 8:00	16 Feb 8:00	ICT				Mon 17
878	Flame detector inspect and testing	100%	30 days	17 Jan 8:00	16 Feb 8:00	ICT				Mon 17
879	Interlock testing	100%	4 days	28 Jan 8:00	01 Feb 8:00	ICT				Wed 16
880	Purge impulse line	100%	3 days	15 Feb 8:00	18 Feb 8:00	ICT				Fri 28
881	Valve overhaul(CV/SOV)	100%	26 days	17 Jan 8:00	13 Feb 8:00	ICT				Tue 18
882	Calibration&drive test control valve/shut off valve/sv	100%	30 days	17 Jan 8:00	16 Feb 8:00	ICT				Mon 17
883	All Damper/IGV control and shut off inspect and calibration	100%	30 days	18 Jan 8:00	17 Feb 8:00	ICT				Tue 18

Task

Critical Task

Milestone

Summary

Rolled Up Task

Rolled Up Critical Task

Rolled Up Milestone

Rolled Up Progress

Split

External Tasks

Project Summary

Group By Summary

Inactive Task

Inactive Milestone

Inactive Milestone

Inactive Summary

Manual Task

Duration-only

Manual Summary/Rollup

Manual Summary

Start-only

Finish-only

External Tasks

External Milestone

Critical

Critical Split

Baseline

Baseline Milestone

Baseline Summary

Progress

Deadline

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2022 unit 1 Draft Outage Schedule

ID	Task Name	% Complete	Duration	Start	Finish	RO	Dec	Jan	Feb	Mar
884	Coal feeder A~F calibration/coal flow monitor inspection	100%	6 days	05 Feb 8:00	11 Feb 8:00	ICT		Sat 05	Fri 11	
885	Burner gun drive test	100%	5 days	12 Feb 8:00	17 Feb 8:00	ICT		Thu 10	Sat 12	Thu 17
886	Verify and Test level/sensor transmitter tide level/cwp pit/bar/band screen.	100%	2 days	10 Feb 8:00	12 Feb 8:00	ICT		Thu 10	Sat 12	
887	H2 Purity analyzer calibration	100%	1 day	03 Feb 8:00	04 Feb 8:00	ICT		Thu 03	Fri 04	
888	Support work (Disconnect, remove and Reinstall)	100%	30 days	16 Jan 8:00	15 Feb 8:00	ICT		Mon 17	Mon 14	
889	Sampling rack with analyzers & condenser leak detector clean	100%	28 days	17 Jan 8:00	14 Feb 8:00	ICT		Thu 20	Sat 22	
890	Preventive Maintenance of conductivity analyzer (Stator Coil C100%	100%	2 days	20 Jan 8:00	22 Jan 8:00	ICT		Mon 31	Fri 04	
891	Economizer oxygen analyzer inspect and calibration	100%	4 days	31 Jan 8:00	04 Feb 8:00	ICT		Sat 22	Wed 26	
892	Yearly inspect belt sway/slip/emergency switch of bottom ash	100%	4 days	22 Jan 8:00	26 Jan 8:00	ICT		Tue 08	Mon 14	
893	Calibration roller gap pulverizer A-F	100%	6 days	08 Feb 8:00	14 Feb 8:00	ICT		Thu 20	Fri 04	
894	Overhaul COD analyzer Outfall Model : OPSA-150 HORIBA	100%	15 days	20 Jan 8:00	04 Feb 8:00	ICT		Mon 17	Sun 06	
895	YEARLY INSPECTION AND CLEANING OPC SOLENOID VA100%	100%	20 days	17 Jan 8:00	06 Feb 8:00	ICT		Thu 20	Wed 09	
896	Yearly inspection and test pulverizer spillage hopper level swit	100%	20 days	20 Jan 8:00	09 Feb 8:00	ICT		Mon 17	Sat 22	
897	Replace DCS card and compact flash for common system and	100%	5 days	17 Jan 8:00	22 Jan 8:00	ICT		Thu 10	Mon 14	
898	Replace CEP A&B inlet strainer diff. press. switch with diff. pre	100%	4 days	10 Feb 8:00	14 Feb 8:00	ICT		Mon 31	Thu 10	
899	Coal feeder upgrade	100%	10 days	31 Jan 8:00	10 Feb 8:00	ICT		Thu 10	Sat 12	
900	DCC big slag detector	100%	2 days	10 Feb 8:00	12 Feb 8:00	ICT		Sat 05	Tue 15	
901	Install boiler metal temp 2ry SH	100%	10 days	05 Feb 8:00	15 Feb 8:00	ICT		Mon 17	Wed 19	
902	DCS Maintenance	100%	35 days	17 Jan 8:00	21 Feb 8:00	DCS		Mon 31	Wed 02	
903	MASTER OM : UNIT 1 DCS CCR GROUP	100%	2 days	17 Jan 8:00	19 Jan 8:00	DCS		Wed 02	Fri 04	
904	MASTER OM : UNIT 1 DCS CER GROUP 1	100%	2 days	31 Jan 8:00	02 Feb 8:00	DCS		Fri 21	Sun 23	
905	MASTER OM : UNIT 1 DCS CER GROUP 2	100%	2 days	02 Feb 8:00	04 Feb 8:00	DCS		Wed 02	Fri 04	
906	MASTER OM : UNIT 1 PLC GROUP	100%	2 days	21 Jan 8:00	23 Jan 8:00	DCS		Tue 01	Thu 03	
907	MASTER OM : UNIT 1 VVVF PLC GROUP	100%	2 days	01 Feb 8:00	03 Feb 8:00	DCS		Thu 03	Fri 04	
908	MASTER OM : UNIT 1 DCS TURBINE BLD GROUP 1	100%	2 days	02 Feb 8:00	04 Feb 8:00	DCS		Thu 03	Sat 05	
909	MASTER OM : UNIT 1 DCS TURBINE BLD GROUP 2	100%	2 days	03 Feb 8:00	05 Feb 8:00	DCS		Sat 05	Mon 07	
910	MASTER OM : UNIT 1 DCS BOILER BLD GROUP 1	100%	2 days	05 Feb 8:00	07 Feb 8:00	DCS		Mon 07	Wed 09	
911	MASTER OM : UNIT 1 DCS BOILER BLD GROUP 2	100%	2 days	07 Feb 8:00	09 Feb 8:00	DCS		Thu 20	Mon 24	
912	MASTER OM : UNIT 1 INTERLOCK /AUX PANEL TEST	100%	4 days	20 Jan 8:00	24 Jan 8:00	DCS		Mon 31	Tue 01	
913	OM-1 YEAR OM UNIT 1 CCTV FOR FURNACE	100%	1 day	31 Jan 8:00	01 Feb 8:00	DCS		Fri 18	Sat 19	
914	MASTER OM : UNIT 1 BFPT VALVE TEST	100%	1 day	18 Feb 8:00	19 Feb 8:00	DCS		Sat 19	Mon 21	
915	MASTER OM : UNIT 1 TURBINE VALVE TEST	100%	2 days	19 Feb 8:00	21 Feb 8:00	DCS		Fri 18	Sun 20	
916	MFT drive test interlock	100%	2 days	18 Feb 8:00	20 Feb 8:00	DCS		Fri 21	Wed 26	
917	PI replace power supply unit ASH&ESP panel	100%	5 days	21 Jan 8:00	26 Jan 8:00	DCS		Fri 21	Sat 29	
918	DCS logic modification work	100%	8 days	21 Jan 8:00	29 Jan 8:00	DCS		Sun 16	Wed 19	
919	MHM-Mill Maintenance	100%	35 days	16 Jan 8:00	20 Feb 8:00	MHM-Mill				
920	Annual Inspection, Repairs and Modifications to Pulverizer -1A	100%	3 days	16 Jan 8:00	19 Jan 8:00	Mill				

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Task	Roll Up Progress	Roll Up Milestone	Inactive Milestone	Inactive Summary	Finish-only	Baseline Summary
Critical Task	Split	Manual Task	Inactive Summary	External Tasks	Progress	Progress
Milestone	External Task	Manual Task	Manual Task	External Milestone	Deadline	Deadline
Summary	Project Summary	Manual Summary	Manual Summary	Critical		
Roll Up Task	Group By Summary	Manual Summary	Manual Summary	Critical Split		
Roll Up Critical Task	Inactive Task	Manual Summary	Manual Summary	Baseline		
Roll Up Milestone	Inactive Milestone	Start-only	Start-only	Baseline Milestone		

2022 unit 1 Draft Outage Schedule

ID	Task Name	% Complete	Duration	Start	Finish	RO	Dec	Jan	Feb	Mar
921	Pulverizer-1A (OH replace Hydraulic Cylinder of loading journal 1AR1)	100%	3 days	16 Jan 8:00	19 Jan 8:00	Mill		Sun 16	Wed 19	
922	Annual Inspection, Repairs and Modifications to Pulverizer - 1B	100%	3 days	16 Jan 8:00	19 Jan 8:00	Mill		Sun 16	Wed 19	
923	Pulverizer-1B (OH replace journal roller)	100%	27 days	20 Jan 8:00	16 Feb 8:00	Mill				
924	Install Scaffolding for Hydraulic loading all roller before shut down finish	100%	0 days	20 Jan 8:00	20 Jan 8:00	ES				
925	Disconnect and remove cable with conduit limit switch for outlet valve and roll lift	100%	1 day	20 Jan 8:00	21 Jan 8:00	ICT				
926	Replace journal roller 3 sets	100%	7 days	20 Jan 8:00	27 Jan 8:00	Mill				
927	Remove Scaffolding for Hydraulic loading all roller for open journal cover	100%	1 day	20 Jan 8:00	21 Jan 8:00	ES				
928	Install Scaffolding for replace blade rotary separator	100%	1 day	21 Jan 8:00	22 Jan 8:00	ES				
929	Replace blade rotary separator with V-belt drive	100%	11 days	21 Jan 8:00	01 Feb 8:00	Mill				
930	Replace seal air gasket lower housing	100%	6 days	23 Jan 8:00	29 Jan 8:00	Mill				
931	Replace wear parts internal pulverizer	100%	22 days	23 Jan 8:00	14 Feb 8:00	Mill				
932	Replace dust seal middle piston hydraulic loading	100%	5 days	11 Feb 8:00	16 Feb 8:00	Mill				
933	Install scaffolding for Hydraulic loading no. 1,2,3	100%	4 hrs	11 Feb 8:00	11 Feb 12:00	Mill				
934	Install cable with conduit limit switch for outlet valve and roll lift	100%	4 hrs	11 Feb 12:00	11 Feb 16:00	ICT				
935	Adjust gap roller	100%	4 hrs	11 Feb 16:00	11 Feb 20:00	Mill				
936	Adjust lub oil level all journal roller	100%	4 hrs	11 Feb 20:00	12 Feb 0:00	ES				
937	Adjust gap Hydraulic	100%	4 hrs	12 Feb 0:00	12 Feb 4:00	Mill				
938	Pulverizer-1C	100%	13 days	07 Feb 8:00	20 Feb 8:00	Mill				
939	Annual Inspection, Repairs and Modifications to Pulverizer - 1D	100%	3 days	16 Jan 8:00	19 Jan 8:00	Mill				
940	Pulverizer-1D (Replace blade rotary separator)	100%	11.17 days	26 Jan 8:00	06 Feb 12:00	Mill				
941	Disconnect and remove cable with conduit limit switch for outlet valve roller no.2	100%	1 day	26 Jan 8:00	27 Jan 8:00	ICT				
942	Install Scaffolding for replace blade rotary separator	100%	1 day	26 Jan 8:00	27 Jan 8:00	ES				
943	Replace blade rotary separator with V-belt drive unit	100%	6 days	26 Jan 8:00	01 Feb 8:00	Mill				
944	Replace seal air gasket lower housing	100%	2 days	30 Jan 8:00	01 Feb 8:00	Mill				
945	Replace dust seal middle piston hydraulic loading	100%	1 day	31 Jan 8:00	01 Feb 8:00	Mill				
946	Install scaffolding for Hydraulic loading no.2	100%	0.5 days	31 Jan 8:00	31 Jan 20:00	ES				
947	Install cable with conduit limit switch for outlet valve and roll lift	100%	0.5 days	31 Jan 20:00	01 Feb 8:00	ICT				
948	Adjust gap roller	100%	0.5 days	01 Feb 8:00	01 Feb 20:00	Mill				
949	Adjust lub oil level all journal roller	100%	0.5 days	01 Feb 20:00	02 Feb 8:00	ES				
950	Adjust gap Hydraulic	100%	4 hrs	06 Feb 8:00	06 Feb 12:00	Mill				
951	Annual Inspection, Repairs and Modifications to Pulverizer - 1E	100%	3 days	16 Jan 8:00	19 Jan 8:00	Mill				
952	Pulverizer-1E (Replace blade rotary separator)	100%	6.5 days	31 Jan 8:00	06 Feb 20:00	Mill				

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ID	Task Name	% Complete	Duration	Start	Finish	RO	Dec	Jan	Feb	Mar
953	Disconnect and remove cable with conduit limit switch for outlet valve roller no.2	100%	1 day	31 Jan 8:00	01 Feb 8:00	ICT		Mon 31	Tue 01	
954	Install Scaffolding for replace blade rotary separator	100%	1 day	31 Jan 8:00	01 Feb 8:00	ES		Mon 31	Tue 01	
955	Replace blade rotary separator with V-belt drive unit	100%	6 days	31 Jan 8:00	06 Feb 8:00	Mill		Mon 31	Tue 01	
956	Replace seal air gasket lower housing	100%	2 days	03 Feb 8:00	05 Feb 8:00	Mill		Thu 03	Sat 05	
957	Replace dust seal middle piston hydraulic loading	100%	1 day	04 Feb 8:00	05 Feb 8:00	Mill		Fri 04	Sat 05	
958	Install scaffolding for Hydraulic loading no.2	100%	0.5 days	04 Feb 8:00	04 Feb 20:00	ES		Fri 04	Sat 05	
959	Install cable with conduit limit switch for outlet valve and roll li	100%	0.5 days	04 Feb 20:00	05 Feb 8:00	ICT		Fri 04	Sat 05	
960	Adjust gap roller	100%	0.5 days	05 Feb 8:00	05 Feb 20:00	Mill		Sat 05	Sun 06	
961	Adjust lub oil level all journal roller	100%	0.5 days	05 Feb 20:00	06 Feb 8:00	ES		Sat 05	Sun 06	
962	Adjust gap Hydraulic	100%	0.5 days	06 Feb 8:00	06 Feb 20:00	Mill		Sun 06	Sun 06	
963	Annual Inspection, Repairs and Modifications to Pulverizer - 1F	100%	3 days	16 Jan 8:00	19 Jan 8:00	Mill		Sun 16	Wed 19	
964	Pulverizer-1F (OH replace journal roller, Replace planetary Gear and Replace rotary separator)	100%	25 days	16 Jan 8:00	10 Feb 8:00	Mill		Sun 16	Mon 17	
965	Disconnect and remove cable with conduit limit switch for outlet valve and roll lift	100%	1 day	16 Jan 8:00	17 Jan 8:00	ICT		Sun 16	Mon 17	
966	Remove limit switch all outlet valve for replace separator	100%	1 day	16 Jan 8:00	17 Jan 8:00	ICT		Sun 16	Mon 17	
967	Install Scaffolding remove coal pipe for replace rotary separator	100%	1 day	17 Jan 8:00	18 Jan 8:00	ES		Mon 17	Tue 18	
968	Replace journal roller 3 sets	100%	20 days	16 Jan 8:00	05 Feb 8:00	Mill		Sun 16	Sat 05	
969	Replace separator complete set	100%	12 days	17 Jan 8:00	29 Jan 8:00	Mill		Mon 17	Sat 29	
970	Install scaffolding for loosen bolts lock upper casing for replace separator	100%	1 day	17 Jan 8:00	18 Jan 8:00	ES		Mon 17	Tue 18	
971	Disconnect power supply for remove motor	100%	1 day	17 Jan 8:00	18 Jan 8:00	LV		Mon 17	Tue 18	
972	Desmantle coal pipe, feeder pipe on the pulverizer for remove rotary separator	100%	2 days	17 Jan 8:00	19 Jan 8:00	Mill		Mon 17	Wed 19	
973	Remove outlet valve complete set put on the floor	100%	1 day	18 Jan 8:00	19 Jan 8:00	Mill		Tue 18	Wed 19	
974	Remove scaffolding on the separator for lifting replace separator	100%	1 day	19 Jan 8:00	20 Jan 8:00	ES		Wed 19	Thu 20	
975	Replacerotary separator complete set	100%	4 days	20 Jan 8:00	24 Jan 8:00	Mill		Thu 20	Mon 24	
976	Install outlet valve on the separator	100%	1 day	24 Jan 8:00	25 Jan 8:00	Mill		Mon 24	Tue 25	
977	Install motor and V-belt drive unit	100%	2 days	25 Jan 8:00	27 Jan 8:00	Mill		Tue 25	Thu 27	
978	Connecting power supply after install motor finished	100%	1 day	26 Jan 8:00	27 Jan 8:00	LV		Wed 26	Thu 27	
979	Install Scaffolding remove coal pipe after install rotary separator	100%	1 day	24 Jan 8:00	25 Jan 8:00	ES		Mon 24	Tue 25	
980	Install feeder pipe and coal pipe	100%	3 days	26 Jan 8:00	29 Jan 8:00	Mill		Wed 26	Sat 29	
981	Test run rotary separator complete set	100%	2 days	05 Feb 8:00	07 Feb 8:00	Mill / ES		Sat 05	Mon 07	
982	Replace planetary gear complete set	100%	7 days	28 Jan 8:00	04 Feb 8:00	Mill		Fri 29	Fri 04	
983	Remove and drain lub oil for replaced planetary gear	100%	1 day	24 Jan 8:00	25 Jan 8:00	ES		Mon 24	Tue 25	
984	Remove pipe line lub oil for planetary gear	100%	2 days	25 Jan 8:00	27 Jan 8:00	Mill		Tue 25	Thu 27	

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ID	Task Name	% Complete	Duration	Start	Finish	RO	Dec	Jan	Feb	Mar
985	Disconnect power supply for remove motor	100%	1 day	24 Jan 8:00	25 Jan 8:00	HV		Mon 24	Tue 25	
986	Disconnect and remove cable temp and Vibration	100%	1 day	25 Jan 8:00	26 Jan 8:00	ICT		Tue 25	Wed 26	
987	Replaced new planetary gear complete set and Alignment	100%	6 days	28 Jan 8:00	03 Feb 8:00	Mill		Fri 25	Thu 03	
988	Connecting power supply after install motor finished	100%	4 days	29 Jan 8:00	02 Feb 8:00	HV		Sat 29	Wed 02	
989	Connect and install cable temp and Vibration	100%	1 day	02 Feb 8:00	03 Feb 8:00	ICT		Wed 02	Thu 03	
990	Refill oil in the new planetary gear	100%	1 day	02 Feb 8:00	03 Feb 8:00	ES		Wed 02	Thu 03	
991	Test run planetary gear with grinding Table	100%	2 days	05 Feb 8:00	07 Feb 8:00	Mill / ES		Sat 05	Mon 07	
992	Replace seal air gasket lower housing	100%	2 days	31 Jan 8:00	02 Feb 8:00	Mill		Mon 31	Wed 02	
993	Replace wear parts internal pulverizer	100%	3 days	01 Feb 8:00	04 Feb 8:00	Mill		Tue 01	Fri 04	
994	Replace dust seal middle piston hydraulic loading	100%	1 day	02 Feb 8:00	03 Feb 8:00	Mill		Wed 02	Thu 03	
995	Install scaffolding for Hydraulic loading no.2	100%	1 day	03 Feb 8:00	04 Feb 8:00	ES		Thu 03	Fri 04	
996	Install cable with conduit limit switch for outlet valve and roll li	100%	1 day	03 Feb 8:00	04 Feb 8:00	ICT		Thu 03	Fri 04	
997	Adjust gap roller	100%	1 day	07 Feb 8:00	08 Feb 8:00	Mill		Mon 07	Tue 08	
998	Adjust lub oil level all journal roller	100%	1 day	08 Feb 8:00	09 Feb 8:00	ES		Tue 08	Wed 09	
999	Adjust gap Hydraulic	100%	1 day	09 Feb 8:00	10 Feb 8:00	Mill		Wed 09	Thu 10	
1000	Annual Inspection of Pulverizer Spillage System	100%	5 days	22 Jan 8:00	27 Jan 8:00	Mill		Sat 22	Thu 27	
1001	Overhaul maintenance of pulverizer Inert Steam valves for Pulverizer system	100%	28 days	16 Jan 8:00	13 Feb 8:00	Mill		Sun 16	Sun 23	
1002	OH inerting steam valve pulverizer 1A and 1B	100%	7 days	16 Jan 8:00	23 Jan 8:00	Mill		Sun 16	Sun 23	
1003	OH inerting steam valve pulverizer 1C and 1D	100%	9 days	23 Jan 8:00	01 Feb 8:00	Mill		Sun 23	Tue 01	
1004	OH inerting steam valve pulverizer 1E and 1F	100%	12 days	01 Feb 8:00	13 Feb 8:00	Mill		Tue 01	Sun 13	
1005	Annual inspection coal feeder for PUL. 1A to 1F	100%	23 days	16 Jan 8:00	08 Feb 8:00	Mill		Sun 16	Tue 08	
1006	Replace inlet chute and PM coal feeder 1A and 1B	100%	9 days	30 Jan 8:00	08 Feb 8:00	Mill		Sun 30	Tue 08	
1007	Replace inlet chute and PM coal feeder 1C and 1D	100%	9 days	23 Jan 8:00	01 Feb 8:00	Mill		Sun 23	Tue 01	
1008	Replace inlet chute and PM coal feeder 1E and 1F	100%	7 days	16 Jan 8:00	23 Jan 8:00	Mill		Sun 16	Sun 23	
1009	Annual inspection coal pipe for PUL.	100%	35 days	16 Jan 8:00	20 Feb 8:00	Mill		Sun 16	Sun 23	
1010	Install Scaffolding for inspection coal pipe before shut down finish	100%	0 days	16 Jan 8:00	16 Jan 8:00	ES		Sun 16	Sun 16	
1011	Install Scaffolding for inspection coal pipe on Pul' 1B	100%	2 days	16 Jan 8:00	18 Jan 8:00	ES		Sun 16	Tue 18	
1012	Install Scaffolding for inspection coal pipe on Pul' 1C	100%	2 days	18 Jan 8:00	20 Jan 8:00	ES		Tue 18	Thu 20	
1013	Install Scaffolding for inspection coal pipe on Pul' 1D	100%	2 days	16 Jan 8:00	18 Jan 8:00	ES		Sun 16	Tue 18	
1014	Install Scaffolding for inspection coal pipe on Pul' 1E	100%	2 days	18 Jan 8:00	20 Jan 8:00	ES		Tue 18	Thu 20	
1015	Install Scaffolding for inspection coal pipe on Pul' 1F	100%	2 days	20 Jan 8:00	22 Jan 8:00	ES		Thu 20	Sat 22	
1016	Group1 - Dismantle/clean/inspect and reassembly the bend pipe 9 sets	100%	5 days	16 Jan 8:00	21 Jan 8:00	Mill		Sun 16	Fri 21	
1017	Group2 - Dismantle/clean/inspect and reassembly the bend pipe 9 sets	100%	5 days	21 Jan 8:00	26 Jan 8:00	Mill		Fri 21	Wed 26	
1018	Group3 - Dismantle/clean/inspect and reassembly the bend pipe 9 sets	100%	5 days	26 Jan 8:00	31 Jan 8:00	Mill		Wed 26	Mon 31	

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ID	Task Name	% Complete	Duration	Start	Finish	RO	Dec	Jan	Feb	Mar
1019	Group4 - Dismantle/clean/inspect and reassembly the bend pipe 9 sets	100%	5 days	31 Jan 8:00	05 Feb 8:00	Mill		Mon 31	Sat 05	
1020	Group5 - Dismantle/clean/inspect and reassembly the bend pipe 9 sets	100%	5 days	05 Feb 8:00	10 Feb 8:00	Mill		Sat 05	Thu 10	
1021	Group6 - Dismantle/clean/inspect and reassembly the bend pipe 9 sets	100%	5 days	10 Feb 8:00	15 Feb 8:00	Mill		Thu 10	Tue 15	
1022	Group7 - Dismantle/clean/inspect and reassembly the bend pipe 9 sets	100%	5 days	15 Feb 8:00	20 Feb 8:00	Mill		Tue 15	Sun 20	
1023	Annual inspection primary Hot & Cold air damper for Pulverizer system	100%	27 days	16 Jan 8:00	12 Feb 8:00	Mill				
1024	Install Scaffolding for inspec and repair damper before shut down finish	100%	0 days	16 Jan 8:00	16 Jan 8:00	ES				
1025	Annual inspection primary Hot & Cold air damper for PUL. 1A & 1B	100%	9 days	03 Feb 8:00	12 Feb 8:00	Mill				
1026	Annual inspection primary Hot & Cold air damper for PUL. 1C & 1D	100%	9 days	25 Jan 8:00	03 Feb 8:00	Mill				
1027	Annual inspection primary Hot & Cold air damper for PUL. 1E & 1F	100%	9 days	16 Jan 8:00	25 Jan 8:00	Mill				
1028	Annual inspection Outlet valve for Pulverizer system	100%	21 days	16 Jan 8:00	06 Feb 8:00	Mill				
1029	Disconnect and remove limit switch for outlet valve	100%	1 day	16 Jan 8:00	17 Jan 8:00	ICT				
1030	Annual inspection Outlet valve for PUL. 1A & 1B	100%	9 days	16 Jan 8:00	25 Jan 8:00	Mill				
1031	Annual inspection Outlet valve for PUL. 1C & 1D	100%	7 days	23 Jan 8:00	30 Jan 8:00	Mill				
1032	Annual inspection Outlet valve for PUL. 1E & 1F	100%	7 days	30 Jan 8:00	06 Feb 8:00	Mill				
1033	Install and connect limit switch for outlet valve	100%	1 day	04 Feb 8:00	05 Feb 8:00	ICT				
1034	Annual inspection Dust collector for coal bunker - unit 1 (floor 6)	100%	7 days	06 Feb 8:00	13 Feb 8:00	Mill				
1035	Operation start up plant	100%	7.96 days	17 Feb 13:00	25 Feb 12:00	OPS				
1036	Return all permit	100%	5 days	17 Feb 13:00	22 Feb 15:00	OPS				
1037	OPS start to line up and check sheet	100%	3 days	19 Feb 15:00	22 Feb 15:00	OPS				
1038	Start Up	100%	3.13 days	22 Feb 9:00	25 Feb 12:00	OPS/ENG				
1039	Air flow and Draft confirmation test by OPS start	100%	1 hr	22 Feb 9:00	22 Feb 10:00	OPS				
1040	Boiler light Off #1	100%	0 hrs	22 Feb 10:00	22 Feb 10:00	OPS				
1041	Condenser vacuum up	100%	4 hrs	22 Feb 10:00	22 Feb 14:00	OPS				
1042	Increase speed to 0 rpm to 500 rpm ; 1.5 hours @500 rpm : rub check	100%	1 hr	22 Feb 14:00	22 Feb 15:00	OPS, TB, ES				
1043	MFT because M-BFP booster pump inlet strainer differential pressure high high >0.5 bar	100%	0 days	22 Feb 15:00	22 Feb 15:00	OPS				
1044	Clean strainer CEP & MBFP#1	100%	22 hrs	22 Feb 15:00	23 Feb 13:00	TB, OPS				
1045	Boiler light Off #2	100%	0 hrs	23 Feb 13:00	23 Feb 13:00	OPS				
1046	Condenser vacuum up	100%	3 hrs	23 Feb 13:00	23 Feb 16:00	OPS				
1047	Increase speed to 0 rpm to 500 rpm	100%	15 mins	23 Feb 16:00	23 Feb 16:15	OPS				

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ID	Task Name	% Complete	Duration	Start	Finish	RO	Dec	Jan	Feb	Mar
1048	Hold speed@500 rpm : rub check	100%	30 mins	23 Feb 16:15	23 Feb 16:45	OPS, TB, ES			Wed 23	Wed 23
1049	Increase speed 500 rpm to 1900 rpm	100%	25 mins	23 Feb 16:45	23 Feb 17:10	OPS			Wed 23	Wed 23
1050	Hold speed@1900 rpm : Heat soak	100%	30 mins	23 Feb 17:10	23 Feb 17:40	OPS, TB, ES			Wed 23	Wed 23
1051	MFT because M-BFP booster pump inlet strainer differential pressure high high >0.5 bar	100%	0 days	23 Feb 17:40	23 Feb 17:40	OPS			Wed 23	Wed 23
1052	clean strainer BFP#2, inspection D/A feedwater storage tank, inspection Condenser hotwell A/B, Debris filter inspection and repair	100%	21 hrs	23 Feb 17:40	24 Feb 14:40	TB, OPS			Wed 23	Thu 24
1053	Boiler light Off #3	100%	0 days	24 Feb 14:40	24 Feb 14:40	OPS			Thu 24	Thu 24
1054	Condenser vacuum up	100%	110 mins	24 Feb 14:40	24 Feb 16:30	OPS			Thu 24	Thu 24
1055	Increase speed 0 to 1900 rpm	100%	0.5 hrs	24 Feb 16:30	24 Feb 17:00	OPS			Thu 24	Thu 24
1056	Hold speed@1900 rpm : Heat soak	100%	2 hrs	24 Feb 17:00	24 Feb 19:00	OPS			Thu 24	Thu 24
1057	Increase speed 1900 rpm to 3000 rpm	100%	20 mins	24 Feb 19:00	24 Feb 19:20	OPS			Thu 24	Thu 24
1058	Collect data 1 hour @ 3000 rpm	100%	1 hr	24 Feb 19:20	24 Feb 20:20	OPS, ES			Thu 24	Thu 24
1059	Confirm data EIT	100%	10 mins	24 Feb 20:20	24 Feb 20:30	MELCO			Thu 24	Thu 24
1060	Unit Syn. Initial load 36 MW	100%	1 hr	24 Feb 20:30	24 Feb 21:30	OPS			Thu 24	Thu 24
1061	Confirm data 20 min.	100%	10 mins	24 Feb 21:30	24 Feb 21:40	MELCO			Thu 24	Thu 24
1062	At 25% load (Load 161 MW)	100%	110 mins	24 Feb 21:40	24 Feb 23:30	OPS			Thu 24	Thu 24
1063	Load 165 MW LP, HP heater flushing ERT, BFPT clean strainer	100%	2.5 hrs	24 Feb 23:30	25 Feb 2:00	OPS/MELCO			Thu 24	Fri 25
1064	Load 334 MW, Steam drum hot bolt, BFPT clean strainer, ERT	100%	4 hrs	25 Feb 2:00	25 Feb 6:00	OPS/BL			Fri 25	Fri 25
1065	Boiler PSV Travi Test (Steam drum and SH), at Load 470 MW, Range pressure 130 barg – 156.7 barg @Steam Drum & silica purging >> Resumption test, ERT	100%	3.5 hrs	25 Feb 6:00	25 Feb 9:30	BL			Fri 25	Fri 25
1066	Boiler PSV Travi Test (RH inlet & outlet and Soot blower), at Load 640 MW, Range pressure 175.4 barg - 181.9 barg @Steam Drum >> Resumption test ERT	100%	2 hrs	25 Feb 9:30	25 Feb 11:30	BL			Fri 25	Fri 25
1067	Full load ERT	100%	0.5 hrs	25 Feb 11:30	25 Feb 12:00	OPS			Fri 25	Fri 25







ภาคผนวก ง-2

ข้อกำหนดการทำงานในบริเวณที่มีเสียงดัง

BLCPPower INSTRUCTION

BLCPPower	I	SH	01	007	F
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Title: **Noise Protection**

Author(s):	Title	Signature	Date
	Safety Engineer		20 March 2017
Owner(s):	SH Manager		20 March 2017
Endorsed By: according to CMAM	Operations Director		20 March 2017
Approved By: according to CMAM	Deputy General Manager		21 March 2017

Next Review Target:	March 2019	Effective Date:	22 March 2017
Associated Documents:	BLCPP-MP-SH-01-003 Hearing Conservation Policy BLCPP-P-SH-01-001 Hazards Identification, Risk Assessment and Control of Risks BLCPP-P-SH-01-004 Working in Confined Spaces BLCPP-P-SH-01-003 Use of Personal Protective Equipment and Safety Equipment BLCPP-F-SH-01-003 Noise Risk Assessment		

Change History							
Rev	Date	Author	Owner	Endorsed By	Authorized By	Modifications/Reason for change	Status
A	11/09/06	RWD	Safety Engineer	N/A	SHE Mgr	First Issue	Withdrawn
B	28/11/08	RWD	Safety Engineer	N/A	SHE Mgr	Second Issue	Withdrawn
C	18/10/10	PM	SHM	SHM	GM	1. Issue to BLCPP template and new coding (refer to BLCPP-P-CS-01-001) 2. Add Hearing conservation program	Withdrawn
D	06/12/12	Safety Engineer	SH Mgr.	SH Mgr.	GM	Adding hearing protection must be wore on item # 5	Withdrawn
E	05/03/15	Safety Engineer	SH Mgr.	OD	GM	Revised the Control of record Add Disposable hearing protection for CCB & Work shop	Withdrawn
F	22/03/17	Safety Engineer	SH Mgr.	OD	DGM	Add definition of TWA, dB (A) and table summarizes the differences between earplugs and earmuffs.	Issued

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 2. Scope
 3. Definition
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 6. Training
 7. Control of Records
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1. Introduction/Purpose

This Instruction sets out the precautions to be considered when working in the noise exposure area at BLCPPower.

2. Scope

This Instruction to be considered as part of the control measures when working is required noise risk assessment. The risk of noise induced hearing loss can be reduced by the implementation of the precautions set out in this instruction.

3. Definition

TWA (time weighted average) is the average exposure within the workplace to any hazardous contaminant or agent using the baseline of an 8 hour per day

dB (A) A decibel, or dB, is an appraised signal strength in terms of relative loudness heard by the ear.

4. Responsibilities

Nominated Supervisors are responsible for determining what control measures are required to reduce the risk to the lowest level reasonably practicable whenever work activities are exposed to noise, a written noise risk assessment must be carried out by a Competent Risk Assessor.

The Safety Engineer/Assistant SH Engineer are responsible for providing risk assessment training and auditing compliance with this instruction.

SH Team are responsible for the hearing conservation program in case of the Time Weighted Average-TWA (the daily personal noise exposure for a normal 8 hour working day) of 85 dB (A) is exceeded. The hearing conservation program consists of:

- Hearing conservation policy
- Noise monitoring
- Hearing monitoring and

All employees are required to wear hearing protection in Hearing Protection Zones, to use and maintain such equipment in accordance with training and instruction provided.

All employees are required to report plant defects that are producing high noise levels to their line manager immediately so that arrangements can be made for a noise assessment to be carried out.

5. Instruction

To control the exposure of all employees, the employees of contractors and visitors engaged by BLCP Power to noise, the following instruction will be applied:

- Where the Time Weighted Average-TWA (*the daily personal noise exposure for a normal 8 hour working day*) of 90 dB (A) is exceeded, engineering solutions will be applied where practical to do so, to reduce the noise to the lowest level reasonably practical.
- In plant areas where the noise intensity cannot be reduced to TWA of 90 dB (A), then these areas will be designated as Hearing Protection Zones in which the wearing of hearing protection will be mandatory when the plant is running.
- Noise surveys will be undertaken by the Safety and Health department in all plant areas in accordance with a pre-determined plan at designated positions around the plant.
- The results of noise surveys will be communicated to all persons who may be affected.
- All employees will undergo audiometric testing yearly for the first two years following their baseline audiogram taken at the time of joining BLCP Power and every year thereafter.
- Contractors will be advised in writing at the Tendering Stage of the Contract of the requirement to wear hearing protection in Hearing Protection Zones and this will be re-enforced during health and safety induction courses for contractors' employees prior to starting work.
- Employees will be consulted with safety engineer/assist SH engineer regard to the selection of hearing protection.
- All Employees that exposes noise will receive training on work place access /SH module by Safety Health department. Regular refreshment training and evaluation will be given on every three years.
- Employees, contractor workers who work or perform jobs at hearing protection zone warning sign shall be wore personal hearing protection (ear plugs or ear muffs) at all time to reduce noise level.

Noise Risk Assessment

All employees are required to report plant defects that are producing high noise levels to their line manager immediately so that arrangements can be made for a noise assessment to be carried out.

Noise risk assessments to be carried out by the nominated supervisor when their employees report high noise levels or when required by use Noise Risk Assessment Form (BLCP-F-SH-01-003).

Hearing Protection Zones

Hearing Protection Zones are areas of the plant where noise intensity levels exceed TWA of 90 dB (A) for 8 hours when the plant is running.

Inside Hearing Protection Zones, it is mandatory for all persons to wear hearing protection when the plant is running.

These zones will be designated at every point of access by the following safety sign

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Noise Protection



and the words, "**Hearing Protection Must Be Worn**".

Hearing Protection for employees and visitors

Disposable hearing protection will be made available from the 1st floor of Administration Building (Exit door near first aid room), Control Center Building (CCB) 3rd floor and Work Shop.

Contractors are required to provide hearing protection for their employees and visitors requiring access to Hearing Protection Zones when the plant is running, or where noise levels exceed the legal limits.

Reference noise protection program based on local regulatory requirements such as Department of Labour Protection and Welfare (DLPW) regulation B.E. 2549.

6. Training

Training will be provided for the concerned Managers by the Owner of this instruction. The Managers will then cascade training to their team members as appropriate via briefing and/or on the job training.

7. Control of Records

All records covered within this instruction provide evidence of the ongoing operation and should be managed in accordance with the requirements of the BLCP-P-HRCS-02-001 Document control

All records must be readily available for scrutiny and audit upon reasonable notice. Records should be stored within the BLCP Filing System BLCP-810-18 maintained by Functional Document Control.

8. Review and Audit

All BLCP Procedures and Instructions will be subject to review every two years unless the need arises before the planned review date. Additionally, this procedure will be subject to audit in accordance with BLCP-P-SH-03-003 – SHE Audit and Review.

Any inaccuracies or omissions in this procedure should be notified to the procedure Owner immediately.

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Noise Protection



The following table summarizes the differences between ear plugs and ear muffs.



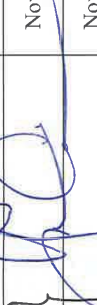
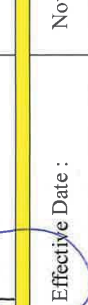
Comparison of Hearing Protection	
Ear Plugs	Ear Muffs
Advantages: <ul style="list-style-type: none">• small and easily carried• convenient to use with other personal protection equipment (can be worn with ear muffs)• more comfortable for long-term wear in hot, humid work areas• convenient for use in confined work areas	Advantages: <ul style="list-style-type: none">• less attenuation variability among users• designed so that one size fits most head sizes• easily seen at a distance to assist in the monitoring of their use• not easily misplaced or lost• may be worn with minor ear infections
Disadvantages: <ul style="list-style-type: none">• requires more time to fit• more difficult to insert and remove• require good hygiene practices• may irritate the ear canal• easily misplaced• more difficult to see and monitor usage	Disadvantages: <ul style="list-style-type: none">• less portable and heavier• more inconvenient for use with other personal protective equipment.• more uncomfortable in hot, humid work area• more inconvenient for use in confined work areas• may interfere with the wearing of safety or prescription glasses: wearing glasses results in breaking the seal between the ear muff and the skin and results in decreased hearing protection.

ภาคผนวก ง-3

โครงการอนุรักษ์การได้ยินของพนักงานโรงไฟฟ้าบีแอลซีพี



BLCP POLICY		BLCP	MP	SH	01	003	D
Title: Hearing Conservation Policy							

Author(s):	Title	Signature	Date
Owner(s):	Safety Engineer		November 23' 2017
Endorsed By: according to CMAM	SH Manager		November 23' 2017
Approved By: according to CMAM	General Manager		November 27' 2017
	Managing Director		November 27' 2017
Next Review Date:		Effective Date :	November 27' 2017
Associated Documents:		Key Policies :	No
1. BLCP-DCC-LAW-0269 : Announcement by Department of Labour Protection and Welfare for hearing conservation program B.E 2553 /ประกาศกรมสวัสดิการและคุ้มครองแรงงานเรื่องหลักเกณฑ์และวิธีการจัดทำโครงการอนุรักษ์การได้ยินในสถานประกอบกิจการ พ.ศ. 2553 2. BLCP-I-SH-01-007; Noise Protection			

Change History							
Rev	Date	Author	Owner	Endorsed By	Authorized By	Modifications/Reason for change	Status
A	8/09/10	PM	SHM	GM	MD	First Issue	Withdrawn
B	14/12/12	Safety Engineer	SHM	GM	MD	Merge the policy from six to five items	Withdrawn
C	17/08/15	Safety Engineer	SHM	GM	MD	- Add more safety engineer responsibility - Revise the review frequency to of this policy (twice years review)	Withdrawn
D	27/11/17	Safety Engineer	SHM	GM	MD	- To follow up new version of ISO 14001 requirement by change stakeholders to interested parties	Issued

CONTENTS

1. Introduction/Purpose
2. Scope
3. Definition
4. Responsibilities
5. Policy
6. Training
7. Control of Records
8. Review and Audit

Appendix



1. **INTRODUCTION/PURPOSE**

The purpose of this policy is to define a hearing conservation policy in accordance with the Department of Labour Protection and Welfare for hearing conservation.

2. **SCOPE**

This policy is applicable to all activities within BLCP Power's scope of responsibility.

3. **DEFINITION**

Hearing conservation means the different measures taken to reduce exposure to noise, such as wearing hearing protection.

4. **RESPONSIBILITY**

The SH Manager is responsible for this policy and development of suitable procedures to ensure that it is successfully implemented.

The Safety Engineer is responsible for coordinating the noise control and hearing conservation program, for directing periodic monitoring and evaluation of sources of potentially high noise exposure and ensuring that education and training is accomplished for relevant employees and contractors.

5. **POLICY**

BLCP Power Station prepare hearing conservation through the proper use of hearing protection and annual hearing test to detect early evidence of a decline in the ability to hear and according to the SHE Policy concerning the Safety, Health and the Environment of our employees, contractors, stakeholders and interested parties in accordance with Thai law on hearing conservation.

(English Version)

BLCP Power is committed to implement hearing conservation by the following means:

1. Establish and implement the Safety Health and Environment management system to comply with all relevant laws and regulations that support hearing conservation.
2. Where practicable eliminate or suppress sources of noise.
3. Perform noise monitoring and hearing surveillance. Communicate with employees, contractors and interested parties in matters of hearing conservation.
4. Encouraging all employees and interested parties to take responsibility and provide the necessary resources to support the hearing conservation program.
5. The hearing conservation program will be reviewed and updated annually in order to allow continuous improvement.



(Thai Version) บริษัท บีแอลซีพี เพาเวอร์ จำกัด มุ่งมั่นที่จะให้มีการดำเนินการด้านการอนุรักษ์การได้ยิน โดยกำหนดนโยบายการอนุรักษ์การได้ยินดังนี้

1. ดำเนินการและพัฒนาระบบการจัดการอาชีวอนามัยและความปลอดภัย ตามมาตรฐานความปลอดภัย ที่เกี่ยวข้องเหมาะสมและสอดคล้องกับข้อกำหนดของกฎหมายและข้อกำหนดอื่นๆ เพื่อสนับสนุนในด้านอนุรักษ์การได้ยิน
2. ดำเนินการลด และกำจัด แหล่งกำเนิดเสียงให้ได้มากที่สุดเท่าที่สามารถจะทำได้
3. ดำเนินการเฝ้าระวัง ติดตาม ตรวจสอบ พื้นที่ ที่มีเสียงดัง และสื่อสารให้พนักงาน ผู้รับเหมา รวมทั้ง ผู้เกี่ยวข้องทุกคนให้ทราบ
4. ส่งเสริม สนับสนุน ให้พนักงานและผู้มีส่วนเกี่ยวข้องทุกคน มีส่วนร่วมและให้การสนับสนุน ทรัพยากรทั้งในเรื่อง บุคลากร เวลา งบประมาณ และการฝึกอบรมที่เหมาะสมและเพียงพอ เพื่อสนับสนุนการดำเนินงานกิจกรรมอนุรักษ์การได้ยินที่จัดทำขึ้นในองค์กร
5. จัดให้มีการประเมินผลการดำเนินงาน โครงการ นโยบายการอนุรักษ์การได้ยินที่กำหนดไว้ข้างต้นเป็นประจำทุกปี เพื่อให้มีการปรับปรุงอย่างต่อเนื่อง

6. **TRAINING**

This policy will be communicated to staff and contractors via site induction training and safety forums.

7. **CONTROL OF RECORDS**

There are no records associated with this policy.

8. **REVIEW AND AUDIT**

This Policy will be subject to review every two years unless the need arises before the planned review date. Any hearing conservation procedures and instructions will be subject to review and audit in accordance with the requirements of BLCP-P-SH-03-003 – Safety, Health and Environment Audit and Review.

Any inaccuracies or omissions in this procedure should be notified to the procedure Owner immediately.

APPENDICES

There are no appendices associated with this policy.

ภาคผนวก จ

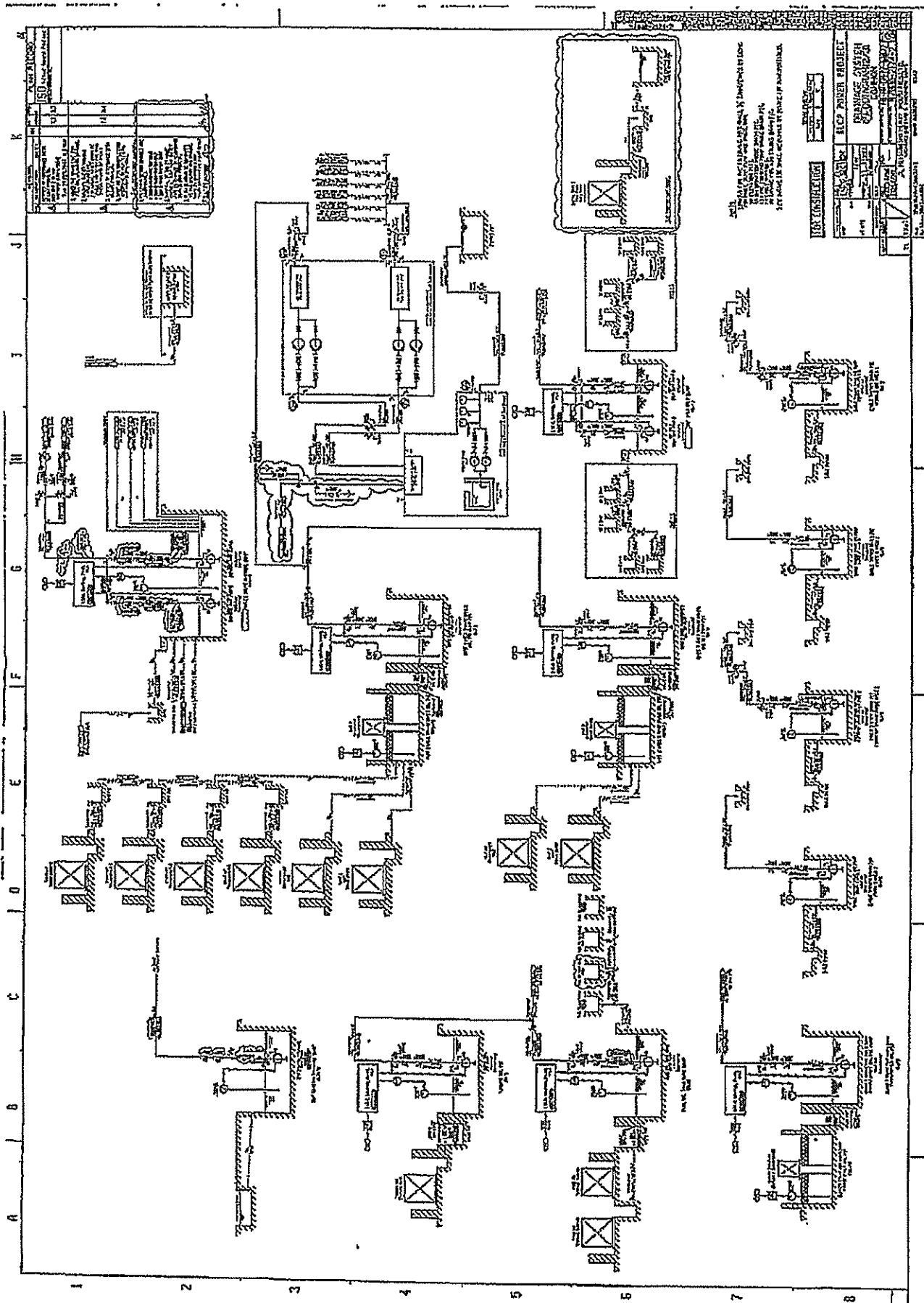
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ภาคผนวก จ-1

แผนผังระบบรวบรวมน้ำภายในโครงการฯ





ภาคผนวก จ-2

แผนผังระบบบำบัดน้ำเสียภายในโครงการฯ



CUSTOMER DRAWING NO.
MO-MN-GN-ZZ-01512
MITSUBISHI DRAWING NO.
53106-1111

Sec. Code
RB1

出図先 BCP
BSCP 39
三重県
津田
田中
田中

U
MMP C
KMP C

発行
計画
設計

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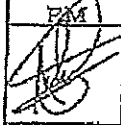
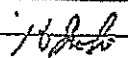
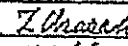


PLAN RECORD		REVISIONS		AP- PROVED	CHECK- ED
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		1	1. Revised based on BCP letter No. TH04/258MM182607THL and minute of design meeting on 09 March, 2004. 2. Revised the cloud marked points as per design progress. Refer to attached revision record. 3. Issue as "FOR CONSTRUCTION" (Aug. 29, 2004) H. Sakuma	1/68	2/68
		2	Issued as AS BUILT DRAWING. (Jun. 14, 2006)	1/68	

REFERENCE DRAWING

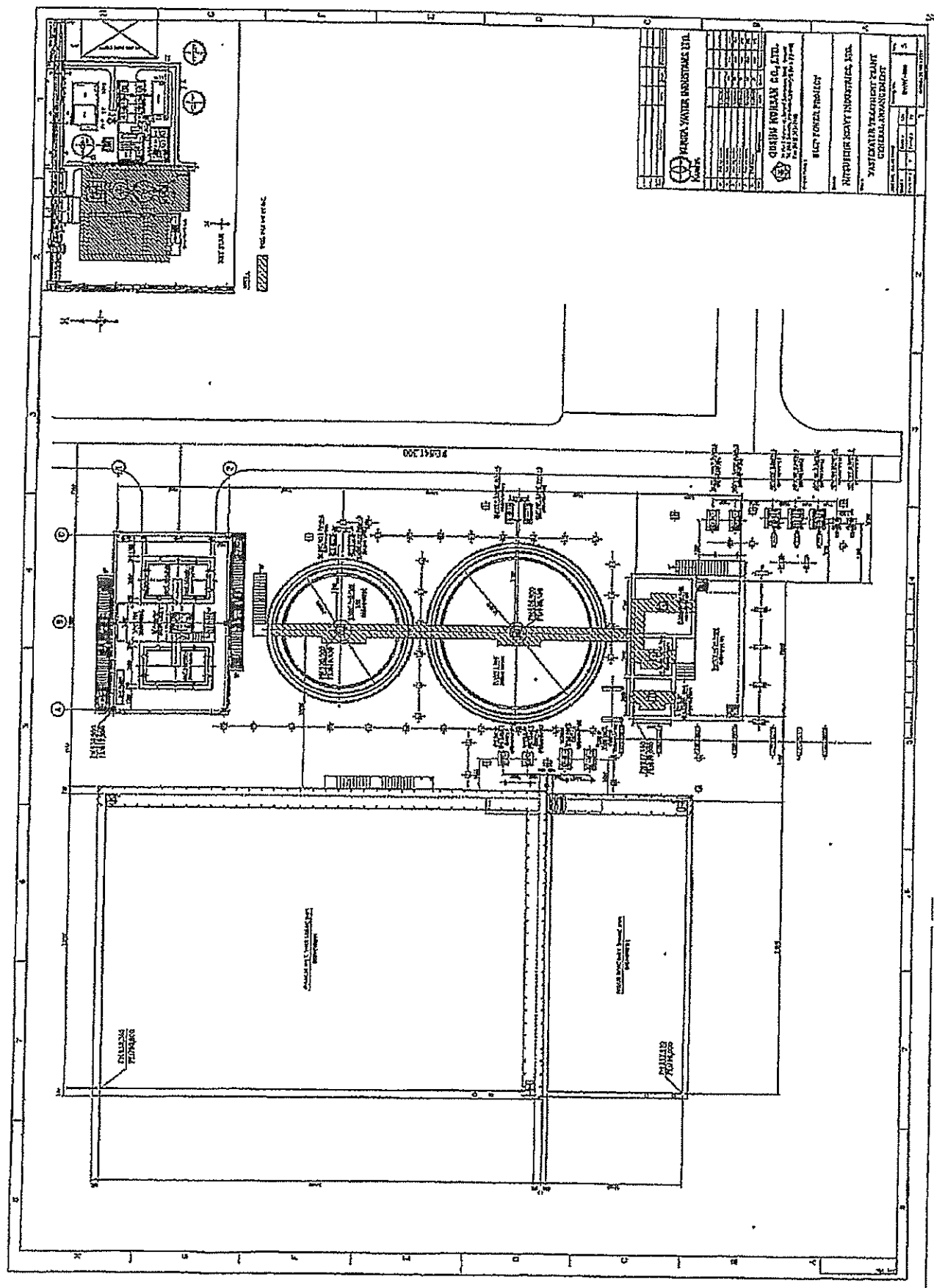
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[MO-MN-6H-ZZ-01509]
2. 53106-1201 : WASTE WATER TREATMENT PLANT EQUIPMENT DRAWING
[MO-MN-GH-EL-01513]

AS-BUILT

A1x1, A4x2: SHEET(S) WITH COVER

	No.2 PLANT ENGINEERING SECTION		BCP POWER PROJECT		
	APPROVED 		WASTE WATER TREATMENT PLANT GENERAL ARRANGEMENT DRAWING		
	CHECKED 				
	DRAWN 				
CONFERRED	SCALE	ORDER	ITEM	CUSTOMER DRAWING NO. MO-MN-GN-ZZ-01512	REV. NO. 2
		07385	53800	MITSUBISHI DRAWING NO. 53106-1111	
 MITSUBISHI HEAVY INDUSTRIES, LTD. NAGASAKI SHIPYARD & MACHINERY WORKS					

DRAWN DEC. 5, 2003 ISSUED



[illegible]

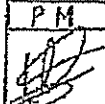
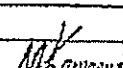
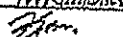

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Sec. Code RB1			

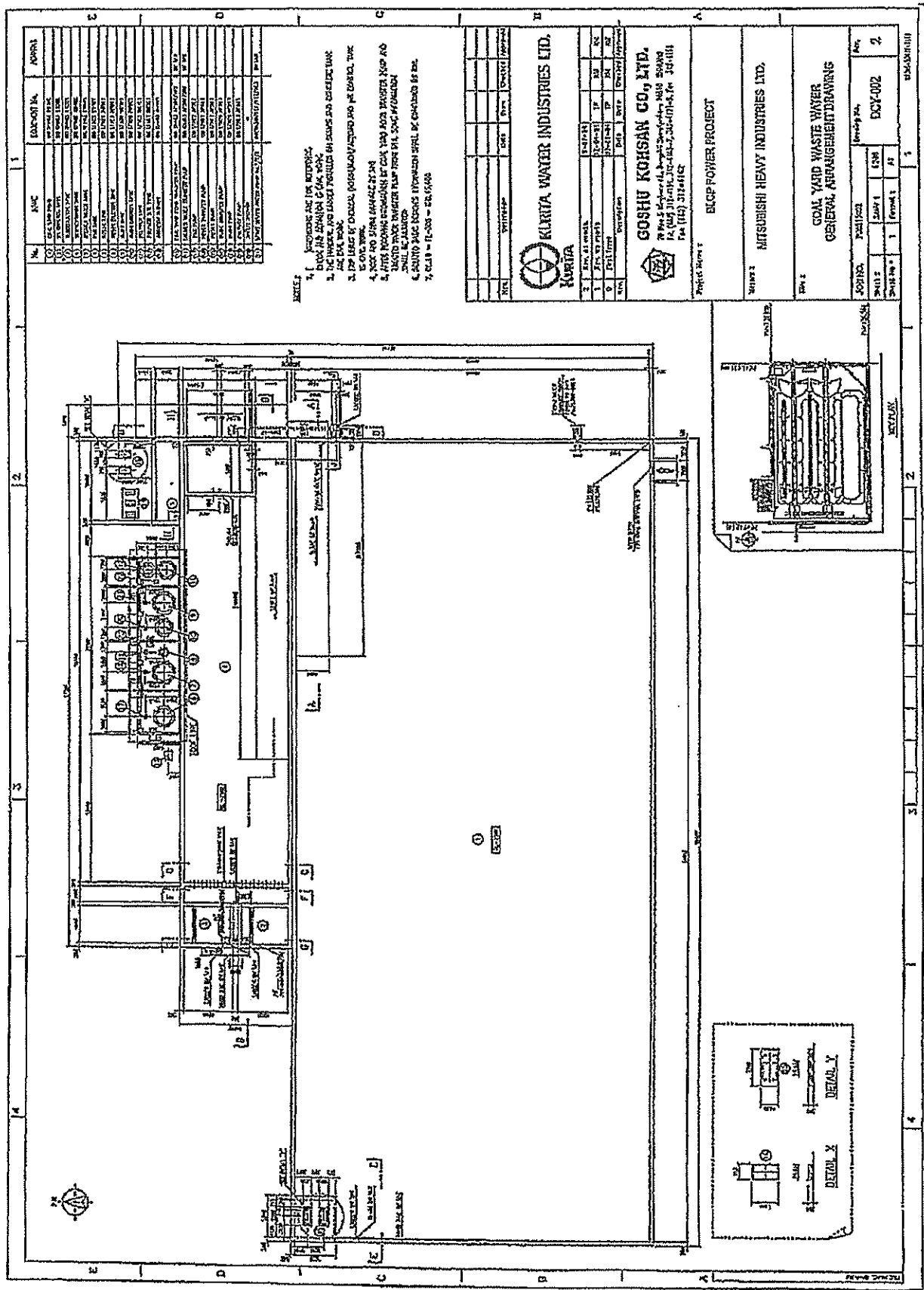
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1. 53117-1011 : COAL YARD WASTE WATER TREATMENT PLANT SPECIFICATION

FOR CONSTRUCTION

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APPROVED 		BLOP POWER PROJECT			
CHECKED 		COAL YARD WASTE WATER TREATMENT PLANT			
DRAWN M. Shimura		GENERAL ARRANGEMENT DRAWING			
CONFERRED		SCALE ~			
ORDER 07385		ITEM 53800		CUSTOMER DRAWING NO. MO-MN-GN-ZZ-01529	
				MITSUBISHI DRAWING NO. 53117-1111	
		 MITSUBISHI HEAVY INDUSTRIES, LTD. NAGASAKI SHIPYARD & MACHINERY WORKS		REV. NO. ①	

DRAWN Aug. 19, 2004 ISSUED



No.	NAME	LOCATION	AREA
1	WASTE WATER TANK	WASTE WATER TANK	1000 SQ. M.
2	WASTE WATER TANK	WASTE WATER TANK	1000 SQ. M.
3	WASTE WATER TANK	WASTE WATER TANK	1000 SQ. M.
4	WASTE WATER TANK	WASTE WATER TANK	1000 SQ. M.
5	WASTE WATER TANK	WASTE WATER TANK	1000 SQ. M.
6	WASTE WATER TANK	WASTE WATER TANK	1000 SQ. M.
7	WASTE WATER TANK	WASTE WATER TANK	1000 SQ. M.
8	WASTE WATER TANK	WASTE WATER TANK	1000 SQ. M.
9	WASTE WATER TANK	WASTE WATER TANK	1000 SQ. M.
10	WASTE WATER TANK	WASTE WATER TANK	1000 SQ. M.
11	WASTE WATER TANK	WASTE WATER TANK	1000 SQ. M.
12	WASTE WATER TANK	WASTE WATER TANK	1000 SQ. M.
13	WASTE WATER TANK	WASTE WATER TANK	1000 SQ. M.
14	WASTE WATER TANK	WASTE WATER TANK	1000 SQ. M.
15	WASTE WATER TANK	WASTE WATER TANK	1000 SQ. M.
16	WASTE WATER TANK	WASTE WATER TANK	1000 SQ. M.
17	WASTE WATER TANK	WASTE WATER TANK	1000 SQ. M.
18	WASTE WATER TANK	WASTE WATER TANK	1000 SQ. M.
19	WASTE WATER TANK	WASTE WATER TANK	1000 SQ. M.
20	WASTE WATER TANK	WASTE WATER TANK	1000 SQ. M.

NOTES:

1. THE DESIGN IS FOR WASTEWATER TREATMENT PLANT.
2. THE TANKS ARE TO BE CONSTRUCTED IN CONCRETE.
3. THE TANKS ARE TO BE CONSTRUCTED IN CONCRETE.
4. THE TANKS ARE TO BE CONSTRUCTED IN CONCRETE.
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18. THE TANKS ARE TO BE CONSTRUCTED IN CONCRETE.
19. THE TANKS ARE TO BE CONSTRUCTED IN CONCRETE.
20. THE TANKS ARE TO BE CONSTRUCTED IN CONCRETE.

ITEM	DESCRIPTION	QTY	UNIT	AMOUNT
1	WASTE WATER TANK	1	NO.	1000
2	WASTE WATER TANK	1	NO.	1000
3	WASTE WATER TANK	1	NO.	1000
4	WASTE WATER TANK	1	NO.	1000
5	WASTE WATER TANK	1	NO.	1000
6	WASTE WATER TANK	1	NO.	1000
7	WASTE WATER TANK	1	NO.	1000
8	WASTE WATER TANK	1	NO.	1000
9	WASTE WATER TANK	1	NO.	1000
10	WASTE WATER TANK	1	NO.	1000
11	WASTE WATER TANK	1	NO.	1000
12	WASTE WATER TANK	1	NO.	1000
13	WASTE WATER TANK	1	NO.	1000
14	WASTE WATER TANK	1	NO.	1000
15	WASTE WATER TANK	1	NO.	1000
16	WASTE WATER TANK	1	NO.	1000
17	WASTE WATER TANK	1	NO.	1000
18	WASTE WATER TANK	1	NO.	1000
19	WASTE WATER TANK	1	NO.	1000
20	WASTE WATER TANK	1	NO.	1000

GOSHU KOKUSAN CO., LTD.
 1-1-1, Kojima 4-chome, Nishi-ku, Kyoto
 Tel. (075) 211-1111

Project Name: BEGP POWER PROJECT

Client: MITSUBISHI HEAVY INDUSTRIES LTD.

General Arrangement Drawing

Scale: 1:1000

Sheet No: 1 of 1

Date: 1980-02-02

Drawn by: [Name]


Checked by: [Name]

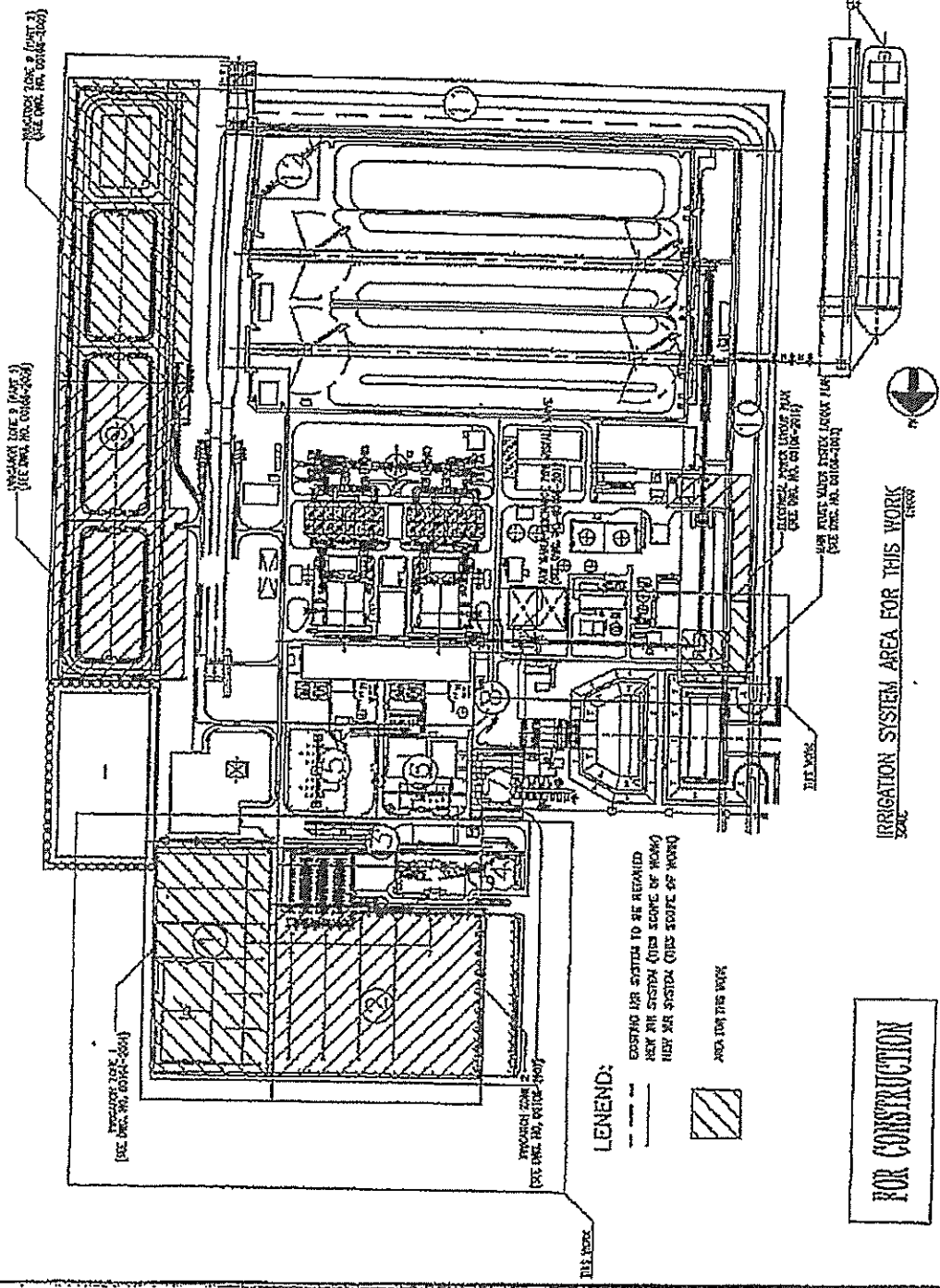
Approved by: [Name]

ภาคผนวก จ-3

แผนผังตำแหน่งติดตั้งบ่อรวบรวมน้ำที่ผ่านการบำบัดจาก
ระบบบำบัดน้ำเสียของโครงการฯ



 Dex Eng. Dex Engineering Company Limited 83/84-85 Market Street, Bangkok 101 Tel. 01-4433113 Fax 01-4433113 Website: dexengr.com	
BLCP POWER BLCP POWER LIMITED	
Project Name: Irrigation System Improvement	
Location: 9, 138 Road 3450 Ta Raun Industrial Trade Estate Rayong District, Rayong Province 21002, Thailand	
Architect: [Blank]	
SPECIALIST ENGINEER: Mr. [Blank]	
STRUCTURAL ENGINEER: [Blank]	
MECHANICAL ENGINEER: [Blank]	
ELECTRICAL ENGINEER: [Blank]	
Title: Irrigation System Improvement	
Drawing Title: IRRIGATION SYSTEM FOR THE WORK	
Date: Dec. 2009	
Author: [Blank]	
Checker: [Blank]	
Designer: [Blank]	
Approver: [Blank]	
Scale: 1:100	
Notes: [Blank]	





THE ENGINEERING COMPANY
INCORPORATED
1000 BROADWAY
NEW YORK, N.Y. 10003

CLIENT
**ELIOT POWER
LIMITED**

PROJECT NAME
Espresso System Improvement

LOCATION
**2, 14 Road
Miyagi Prefecture, Japan
Miyagi Prefecture, Japan
Miyagi Prefecture, Japan**

DATE
1987

PROJECT NO.
1000

DESIGN NO.
1000

CONTRACT NO.
1000

PROJECT NO.
1000

DATE
1987

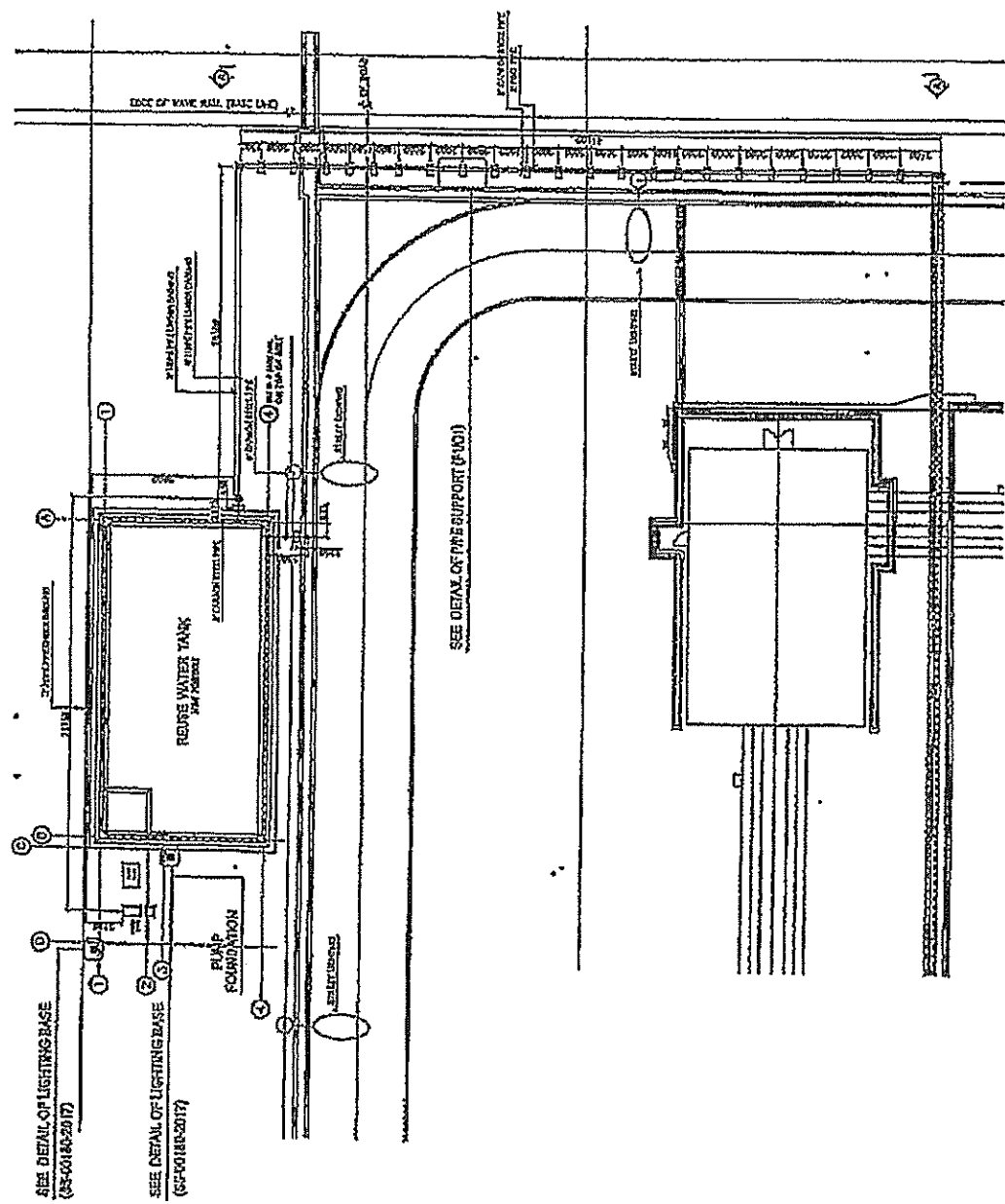
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DATE
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DATE
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PROJECT NO.
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FOR CONSTRUCTION

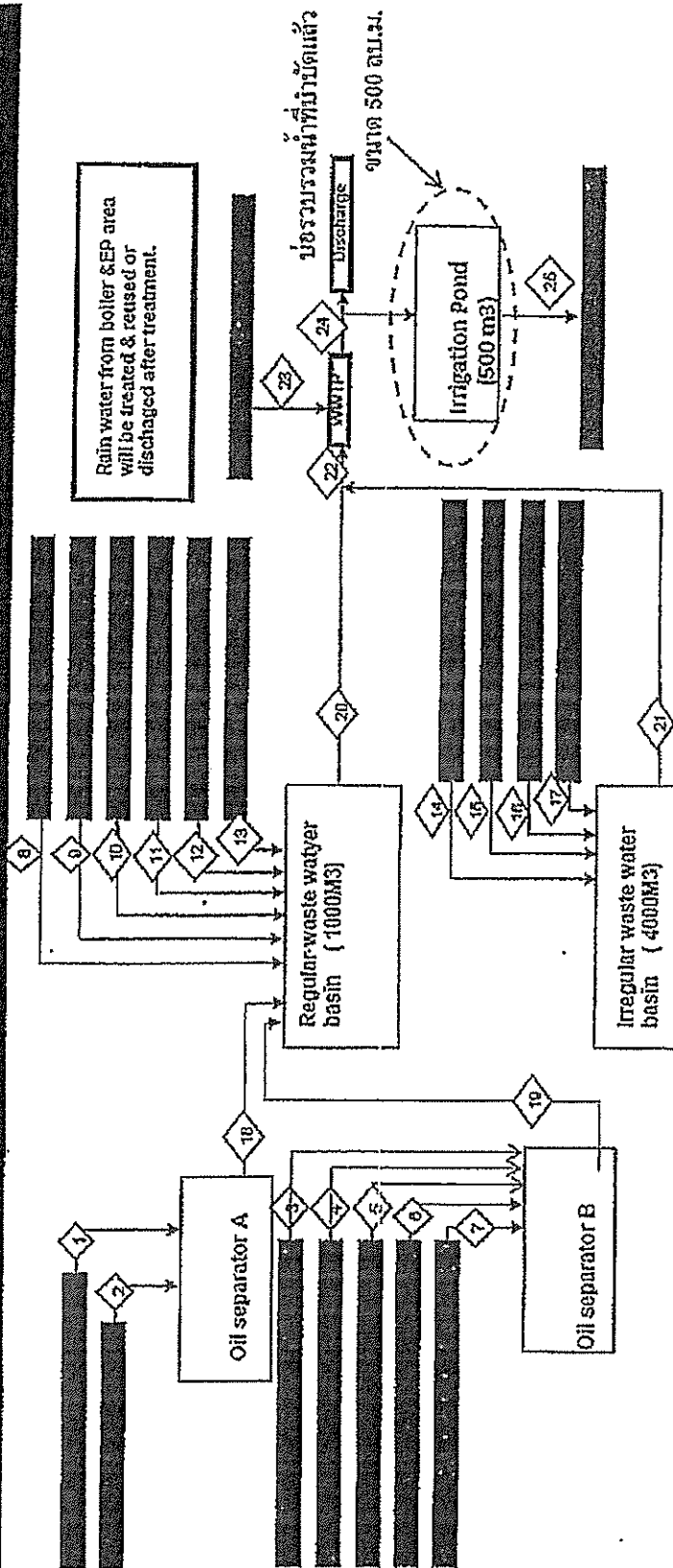
LAYOUT PLAN
SCALE 1:250

ภาคผนวก จ-4

รายละเอียดการออกแบบระบบบำบัดน้ำเสียของโครงการฯ



Water Balance for 2 Units



Refer : NO-MN-GN-PP-00090 (97000-2262-26) RO_WASTE WATER TREATMENT PLANT DESIGN MANUAL

Item	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Flow rate (m3/hr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flow rate (m3/day)	151	0	37	50	40	322	11	180	40	576	40	1752	10	3540	0	0	0	0	0	0	0	0	0	0	0	0
Flow rate (m3/month)	151	0	37	50	40	322	11	180	40	576	40	1752	10	3540	0	0	0	0	0	0	0	0	0	0	0	0
Flow rate (m3/year)	151	0	37	50	40	322	11	180	40	576	40	1752	10	3540	0	0	0	0	0	0	0	0	0	0	0	0
Flow rate (m3/second)	151	0	37	50	40	322	11	180	40	576	40	1752	10	3540	0	0	0	0	0	0	0	0	0	0	0	0
Flow rate (m3/minute)	151	0	37	50	40	322	11	180	40	576	40	1752	10	3540	0	0	0	0	0	0	0	0	0	0	0	0
Flow rate (m3/hour)	151	0	37	50	40	322	11	180	40	576	40	1752	10	3540	0	0	0	0	0	0	0	0	0	0	0	0
Flow rate (m3/day)	151	0	37	50	40	322	11	180	40	576	40	1752	10	3540	0	0	0	0	0	0	0	0	0	0	0	0
Flow rate (m3/month)	151	0	37	50	40	322	11	180	40	576	40	1752	10	3540	0	0	0	0	0	0	0	0	0	0	0	0
Flow rate (m3/year)	151	0	37	50	40	322	11	180	40	576	40	1752	10	3540	0	0	0	0	0	0	0	0	0	0	0	0
Flow rate (m3/second)	151	0	37	50	40	322	11	180	40	576	40	1752	10	3540	0	0	0	0	0	0	0	0	0	0	0	0
Flow rate (m3/minute)	151	0	37	50	40	322	11	180	40	576	40	1752	10	3540	0	0	0	0	0	0	0	0	0	0	0	0
Flow rate (m3/hour)	151	0	37	50	40	322	11	180	40	576	40	1752	10	3540	0	0	0	0	0	0	0	0	0	0	0	0
Flow rate (m3/day)	151	0	37	50	40	322	11	180	40	576	40	1752	10	3540	0	0	0	0	0	0	0	0	0	0	0	0
Flow rate (m3/month)	151	0	37	50	40	322	11	180	40	576	40	1752	10	3540	0	0	0	0	0	0	0	0	0	0	0	0
Flow rate (m3/year)	151	0	37	50	40	322	11	180	40	576	40	1752	10	3540	0	0	0	0	0	0	0	0	0	0	0	0

(*) Only the steady waste water (i.e. excluding the rain water) is considered in this water balance.
 (**) The flow rate to treat the steady waste water depends on the load for treating the steady waste water.
 (***) The capacity of waste water treatment plant to be treated on the nameplate will be 100 m3/hr (2400 m3/day).

ความสามารถในการรองรับน้ำเสีย 2,131 ลบ.ม./วัน

รูปที่ 4-1 การออกแบบระบบบำบัดน้ำเสียของโครงการ

ภาคผนวก จ-5

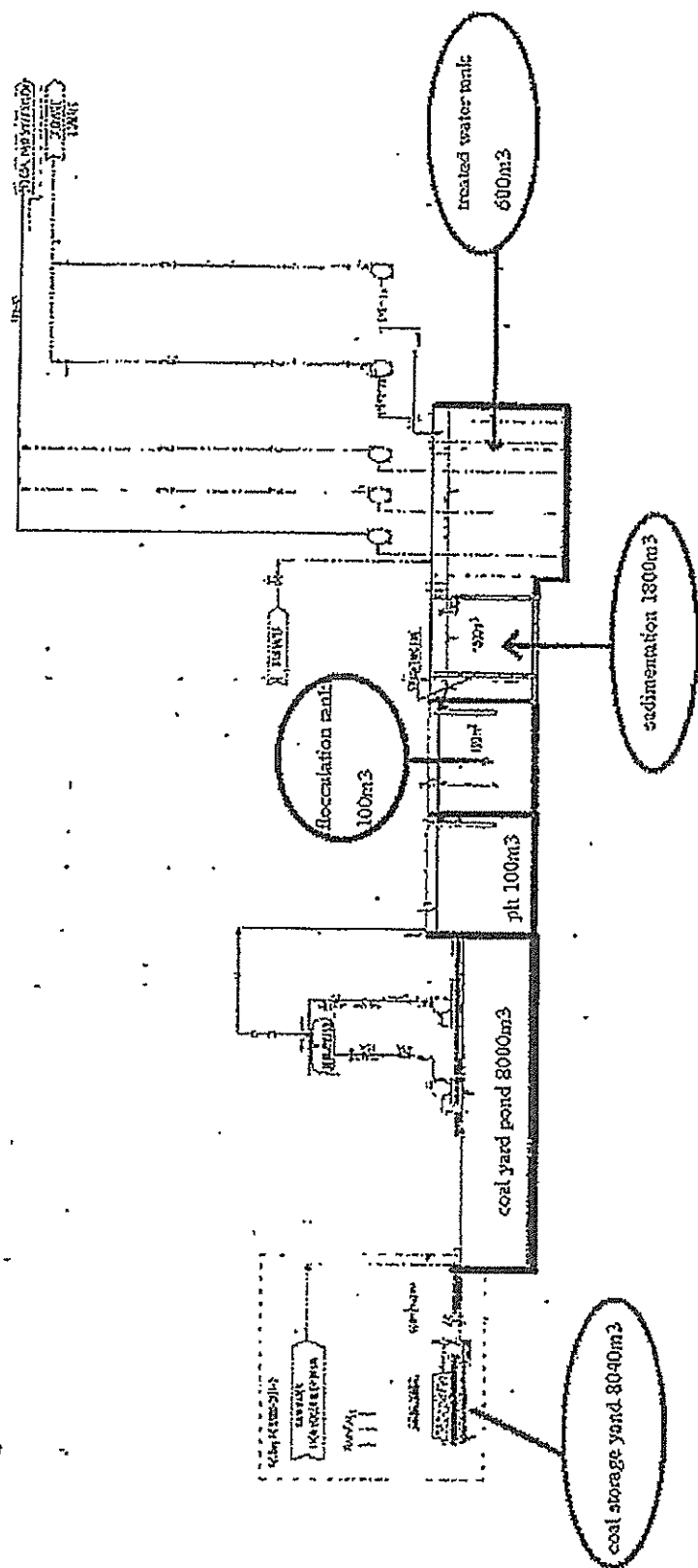
ความสามารถในการรองรับน้ำเสียของ Coal Yard Pond



Capacity of Coal Yard Pond

ปริมาณน้ำที่ระบม coal yard pond ขึ้นอยู่กับความ

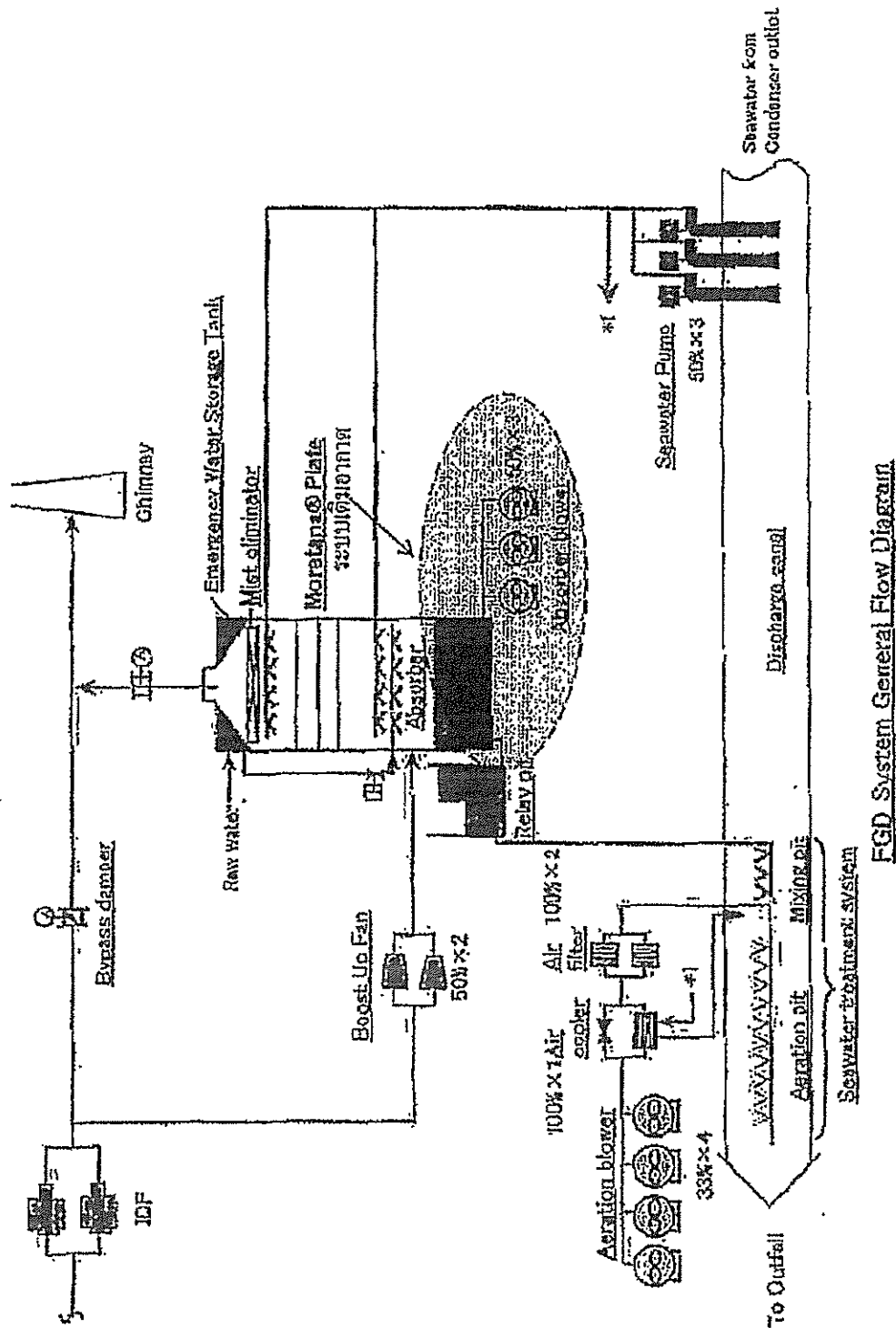
$$8040 + 8000 \div 100 + 100 + 1800 = 600 = 18640 \text{ m}^3$$



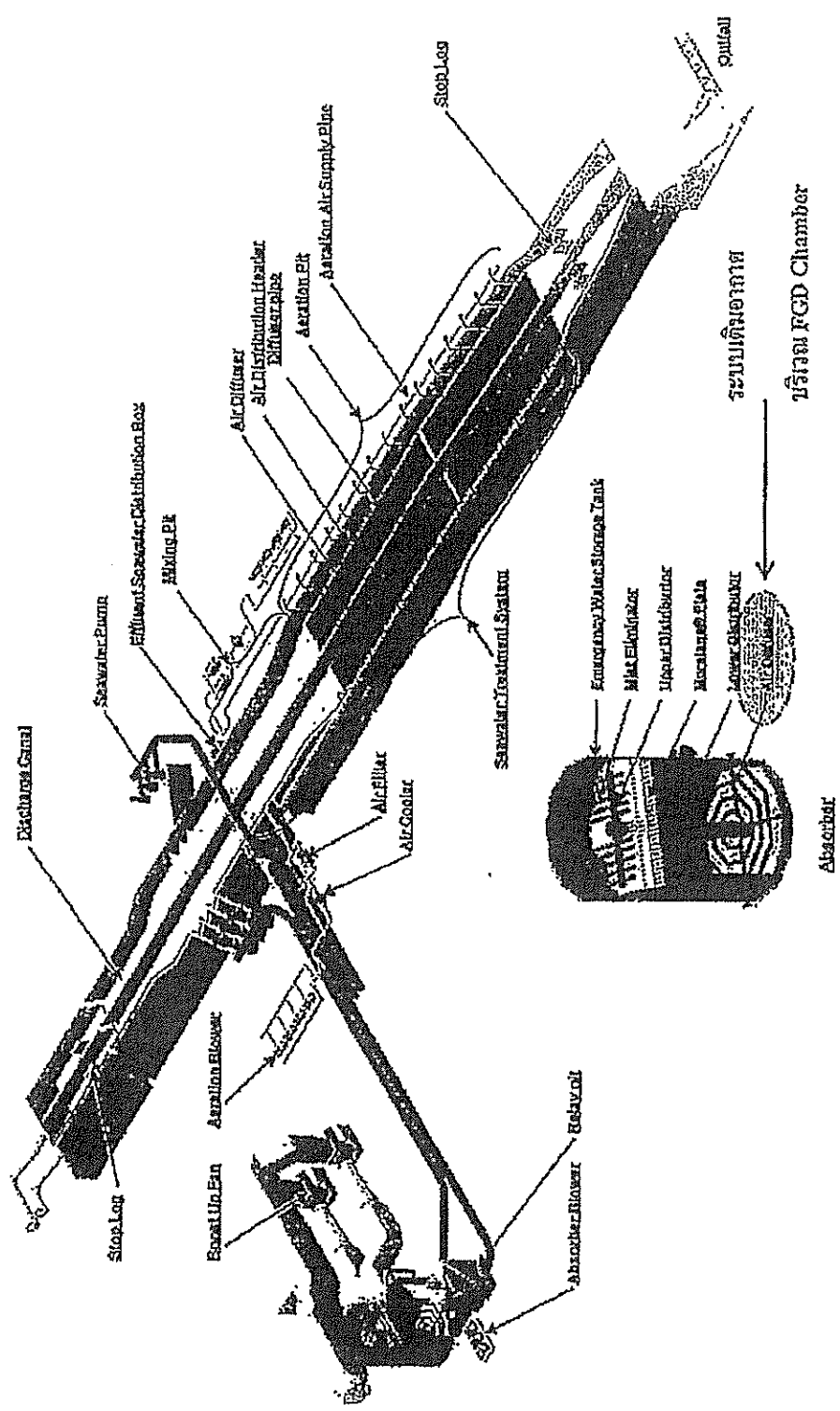
รูปที่ 6-1 ความสามารถในการรับน้ำเสียของ Coal Yard Pond สูงสุด 18,640 ลบ.ม.

ภาคผนวก จ-6

การติดตั้งระบบเติมอากาศบริเวณ FGD Chamber



รูปที่ 5-1 Process Flow Diagram แสดงการติดตั้งระบบตีอากาศบริเวณ FGD Chamber



FGD System General Arrangement

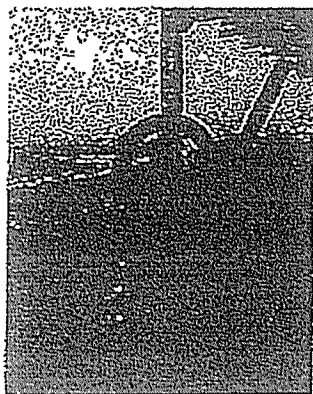
รูปที่ 5-2 การทำงานของระบบ FGD

ภาคผนวก ฉ

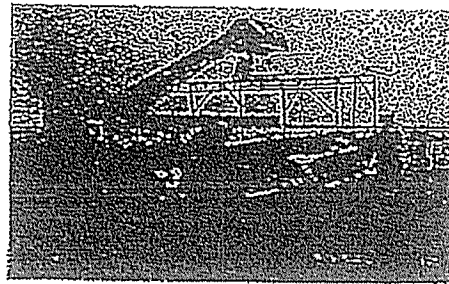
โปรแกรมด้านความช่วยเหลือในกรณีที่เกิดอุบัติเหตุทางทะเล
และอุปกรณ์ที่จัดเตรียมไว้ตามมาตรฐานพานิชนาวิสากล

โปรแกรมด้านความช่วยเหลือในกรณีที่เกิดอุบัติเหตุทางทะเล

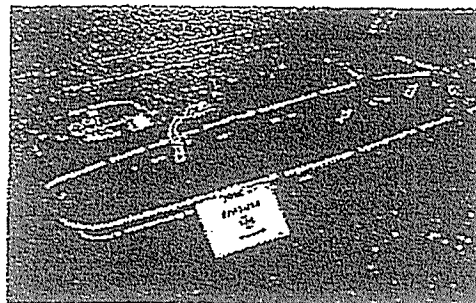
1. ผู้พบเห็น ร้องขอหรือส่งสัญญาณให้ผู้ใกล้เคียงได้รู้เพื่อสามารถช่วยเหลือ
2. โยนห่วงยาง ให้คนตกน้ำเกาะแล้วดึงเรือไว้ไม่ให้ถล่นหรือออกไปไกล
3. ติดต่อแจ้ง PFSO และผู้จัดการกะให้ทราบทันที
เบอร์รับแจ้งเหตุฉุกเฉิน (038) 91-8555 อยู่ที่ Control Room Main Plant
PFSO โทร 089-799 2667
Control Room Coal Plant โทร 038-91 8652
หรือโดยวิทยุ VHF ช่อง 3 สำหรับ Main Plant และ ช่อง 6 สำหรับ Coal Plant
4. ทีมช่วยชีวิตอาเรือของลงไปช่วยเหลือ
5. ติดต่อพยาบาลประจำบริษัท ไม่มช่วยเหลือน โทร 038-91 8586 ในเวลาทำการ
6. นำคนตกน้ำขึ้นมายบนท่าเรือ ประชุมพยาบาลเบื้องต้น หายปอด มีบาดแผล
7. นำส่งโรงพยาบาล



ห่วงชูชีพ

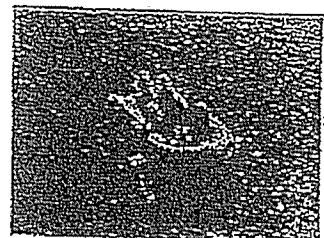
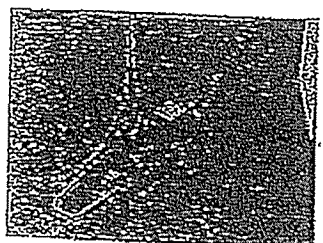
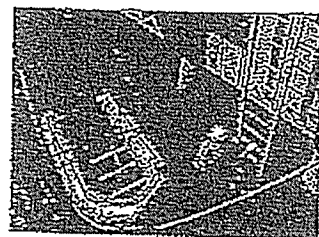
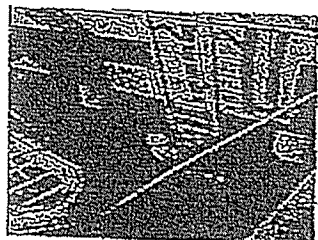
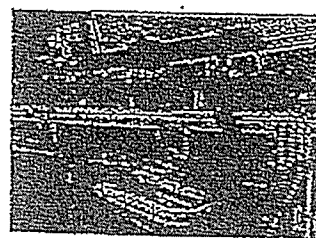
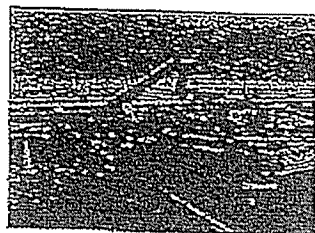
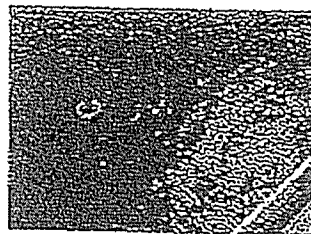
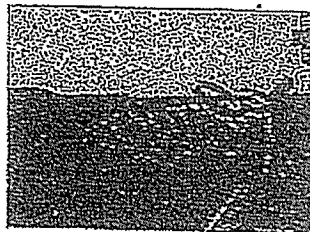
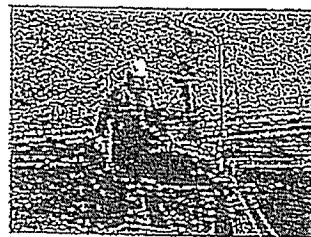
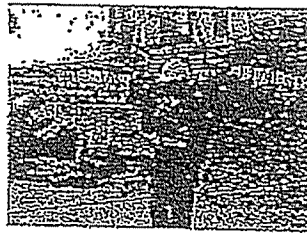


เรือย4



แปล

การฝึกซ้อมในท่าเรือและการเอาเรือและปลดลงน้ำ



อุปกรณ์ที่จัดเตรียมไว้สำหรับช่วยเหลือผู้ได้รับอุบัติเหตุทางทะเลตามมาตรฐานทางวิชาชีพสากล

