

Table 5: Turnover to cold commissioning (continued)

Activity ID	Activity name	Typical task duration (days)	Resource required	% Complete	RAG status	Reasons and comments	Start	Finish
Power transmission and auxiliary power system		0						
SYS1.0201253	TOC – Generator step-up transformer ST	0	Commissioning team and electrical specialist					
SYS1.0201254	TOC – Isolated-phase bus bars ST	0	Commissioning team and electrical specialist					
UPS system		0						
SYS1.0201255	TOC – UPS system	0	Commissioning team and electrical specialist					
Common BOP controls – TOC		14						
Instrumentation and control systems		14						
SYS1.00199	TOC – DCS unit 1, GT, HRSG and BOP control and monitoring and plant protection	14	Commissioning team and C&I + DCS config and system specialist					
SAFE1.00199	TOC – Unit 1 GT, HRSG and BOP safety related systems (including SIL protection)	5	Commissioning team and C&I + SIS protection specialist					
Utilities – TOC		52						
Communication systems		0						
TOP1.1251	TOC – Communications system (telephony, PA, voice, data and security systems)	0	Commissioning team and C&I specialist					

Table 5: Turnover to cold commissioning (continued)

Activity ID	Activity name	Typical task duration (days)	Resource required	% Complete	RAG status	Reasons and comments	Start	Finish
Cranes and hoists		0						
TOP1.1252	TOC – Overhead cranes	0	Commissioning team					
TOP1.1253	TOC – Miscellaneous lifting equipment	0	Commissioning team					
Fire protection system		0						
TOP1.1240	TOC – Fire fighting water pumping station	0	Commissioning team					
TOP1.1260	TOC – Fire fighting water distribution system for backfeed	0	Commissioning team					
TOP1.1270	TOC – Fire fighting water distribution system for remaining	0	Commissioning team					
TOP1.1250	TOC – Fire fighting gas extinguisher system	0	Commissioning team					
TOP1.1230	TOC – Emergency sea water supply for fire fighting system	0	Commissioning team					
Heat tracing systems		14						
SYS1.810131	TOC – Heat tracing systems	14	Commissioning team and electrical specialist					
HVAC system		14						
SYS1.330152	TOC – HVAC system	14	Commissioning team and electrical specialist					

Table 5: Turnover to cold commissioning (continued)

Activity ID	Activity name	Typical task duration (days)	Resource required	% Complete	RAG status	Reasons and comments	Start	Finish
Fire detection and alarm system		14						
SYS1.330153	TOC – Fire detection and alarm system for backfeed	14	Commissioning team					
SYS1.330154	TOC – Fire detection and alarm system for remaining	0	Commissioning team					
Civil		0						
SYS1.1301136	Construction dossier – warehouse and workshop building	0	Commissioning team					
SYS1.1301137	Construction dossier – gatehouse building	0	Commissioning team					
SYS1.1301143	Construction dossier – switchyard control building	0	Commissioning team					
SYS1.1301133	Construction dossier – administration building	0	Commissioning team					
SYS1.1301132	Construction dossier – electrical and control building	0	Commissioning team					
SYS1.1301134	Construction dossier – staff canteen building	0	Commissioning team					
SYS1.1301135	Construction dossier – first aid and changing room building	0	Commissioning team					

Table 5: Turnover to cold commissioning (continued)

Activity ID	Activity name	Typical task duration (days)	Resource required	% Complete	RAG status	Reasons and comments	Start	Finish
SYS1.1301142	Construction dossier – general services pump house	0	Commissioning team					
SYS1.1301140	Construction dossier – auxiliary boiler building	0	Commissioning team					
SYS1.1301139	Construction dossier – WTP building	0	Commissioning team					
SYS1.1301138	Construction dossier – bunker	0	Commissioning team					

Table 6: System/cold commissioning check sheet

Activity ID	Activity name	Typical task duration (days)	Resource required	% Complete	RAG status	Reasons and comments	Start	Finish
Systems commissioning		713						
Hotloop checks (completed in parallel ending before final system commissioning): use DCS and screens, 100 % check and must return 100 % correct, if not find root cause and correct then retest Close out all alarm reviews and shelved alarms (review to IEC 62682/EEMUA 191 alarm metrics if still applicable) Check calibration of instruments			Coordinated by the contractor's commissioning turnover team, and the site operations team: – Station manager – Operations manager – QA safety engineer – PTW controller					
Commissioning unit 1		136						
GT plant systems – unit 1		114						
SYS-GT-751318	Hotloop checks – GT electrical/electronic package	5						
SYS-GT-50102319	Commission – GT electrical/electronic package	10						
SYS-GT-530103	Hotloop checks – GT lubrication oil	5						
SYS-GT-530104	Commission – GT lubrication oil	10						

Table 6: System/cold commissioning check sheet (continued)

Activity ID	Activity name	Typical task duration (days)	Resource required	% Complete	RAG status	Reasons and comments	Start	Finish
SYS-GT-102237	Hotloop checks – GT d.c. supply	0						
SYS-GT-102236	Commission – GT d.c. supply	0						
SYS-GT-102289	Hotloop checks – GT	0						
SYS-GT-102288	Commission – GT	0						
SYS-GT-102235	Hotloop checks – GT governor control and protection	0						
SYS-GT-102234	Commission – GT governor control and protection	0						
SYS-GT-102279	Hotloop checks – GT acoustical package and ventilation	10						
SYS-GT-101278	Commission – GT acoustical package and ventilation	10						
SYS-GT-102277	Hotloop checks – compressor washing	3						
SYS-GT-101276	Commission – compressor washing	3						
SYS-GT-102283	Hotloop checks – air inlet	5						

Table 6: System/cold commissioning check sheet (continued)

Activity ID	Activity name	Typical task duration (days)	Resource required	% Complete	RAG status	Reasons and comments	Start	Finish
SYS-GT-101282	Commission – air inlet	5						
SYS-GT-104285	Hotloop checks – exhaust system	3						
SYS-GT-103284	Commission – exhaust system	3						
SYS-GT-102233	Hotloop checks – GT firefighting and gas detection	5						
SYS-GT-101232	Commission – GT firefighting and gas detection	7						
SYS-GT-101286	Hotloop checks – gas fuel	3						
SYS-GT-102287	Commission – GT gas fuel	4						
SYS-GT-72330	GT 1 on turning gear	0						
SYS-GT-72331	GT 1 crank test	0						
SYS-GT-72332	GT 1 ready for unit 1 first fire	0						
GT generator – unit 1		69						
SYS-GT-1.2173	Commission – GT generator protection	14						
SYS-GT-1.1172	Hotloop checks – GT generator protection	14						

Table 6: System/cold commissioning check sheet (continued)

Activity ID	Activity name	Typical task duration (days)	Resource required	% Complete	RAG status	Reasons and comments	Start	Finish
SYS-GT-481	Hotloop checks – GT generator 1 seal oil H2 CO ₂	4						
SYS-GT-480102	Commission – GT generator 1 seal oil H2 CO ₂	4						
SYS-GT-1.4112	Commission generator	10						
SYS-GT-1.110	Hotloop checks – generator	10						
SYS-GT-0.1228	Hotloop checks – excitation	10						
SYS-GT-2.2229	Commission – excitation	10						
SYS-GT-2.241	Commission – LCI/SFC	10						
SYS-GT-2.1240	Hotloop checks – LCI/SFC	10						
HRSG systems – unit 1		26						
SYS-HRSG-1.0283	Hotloop checks – HRSG 1 HP system	21						
SYS-HRSG-1.0285	Hotloop checks – HRSG 1 LP system	0						
SYS-HRSG-1.0287	Hotloop checks – HRSG 1 intermediate reheat system	0						

Table 6: System/cold commissioning check sheet (continued)

Activity ID	Activity name	Typical task duration (days)	Resource required	% Complete	RAG status	Reasons and comments	Start	Finish
SYS-HRSG-1.0286	Commission – HRSG 1 intermediate reheat system	0						
SYS-HRSG-1.0284	Commission – HRSG 1 LP system	0						
SYS-HRSG-1.0103	Commission – HRSG 1 HP system	21						
SYS-HRSG-1.0288	Commission – exhaust gas path (and bypass/blast stack if fitted)	0						
SYS-HRSG-1.1202	Hotloop checks – blowdown	5						
SYS-HRSG-1.2203	Commission – blowdown	5						
SYS-HRSG-1.0289	Hotloop checks – exhaust gas path	0						
BOP mechanical unit 1		58						
Feedwater system – unit 1		22						
SYS-F/W-1.2176	Hotloop checks – HP feedwater system for HRSG 1	0						
SYS-F/W-1.2175	Commission – IP feedwater system for HRSG 1	13						

Table 6: System/cold commissioning check sheet (continued)

Activity ID	Activity name	Typical task duration (days)	Resource required	% Complete	RAG status	Reasons and comments	Start	Finish
SYS-F/W-1.2177	Commission – HP feedwater system for HRSG 1	0						
SYS-F/W-1.1174	Hotloop checks – IP feedwater system for HRSG 1	14						
SYS-F/W-1.2178	IP feedwater pumps coupled run	0						
SYS-F/W-1.2179	HP feedwater pumps coupled run to HP drum	0						
SYS-F/W-1.2180	Functional tests – feedwater system unit 1	0						
SYS-F/W-1.2188	Feedwater system unit 1 ready for unit 1 first fire	0						
N2 storage and distribution system – unit 1		39						
SYS-GEN-1.01109	Hotloop checks – N2 storage and distribution system for unit 1	4						
SYS-GEN-1.03111	Commission – N2 storage and distribution system for unit 1	4						

Table 6: System/cold commissioning check sheet (continued)

Activity ID	Activity name	Typical task duration (days)	Resource required	% Complete	RAG status	Reasons and comments	Start	Finish
Sampling system – unit 1		0						
SYS-SAMP-1.02176	Hotloop checks – sampling system for HRSG 1	0						
SYS-SAMP-1.02175	Commission – sampling system for HRSG 1	0						
Steam and bypass system – unit 1		0						
SYS-stM-1.02156	Hotloop checks – HP steam system	0						
SYS-stM-1.02169	Hotloop checks – hot reheat system	0						
SYS-stM-1.02226	Hotloop checks – cold reheat system	0						
SYS-stM-1.02198	Hotloop checks – LP steam system	0						
SYS-stM-1.02222	Commission – cold reheat system	0						
SYS-stM-1.02154	Commission – HP steam system	0						
SYS-stM-1.02168	Commission – hot reheat system	0						
SYS-stM-1.02196	Commission – LP steam system	0						