附件

高压岸电连船测试操作流程 AMP System Operating Procedure					
一、岸电并网 HV SWITCH					
序号 NO	操作指令 Operating Instructions	具体操作步骤 Operating Instructions	操作单位 Operator	操作人员	操作时间
1	岸电电源上电启动，待输出状态 Energize the Shoreside Power and wait for output	按照操作顺序，依次合上岸电设备控制回路电源、打开空调系统 Power the equipment and the air conditioner	岸方 shore		
		摇入 601 岸电电源进线柜 6kV 进线柜断路器 Rotate the racking tool clockwise until the 601 breaker is in place	岸方 shore		
		601 就地/远方旋钮设置为就地 Rotate 601 "LOCAL/REMOTE" switch to "LOCAL"	岸方 shore		
		601 断路器由分位变合位 Energize the shoreside 601 breaker	岸方 shore		
		手动操作预冲柜合闸，降压变压器预冲上电，上电完成后确认预冲回路是否旁路 Send power to Step-down transformer by closing "预充柜 KM1" manually at first,and verify that "KM2" is closed while Step-down transformer already working.	岸方 shore		
		岸电电源启动，进入待输出状态 Energize the Shoreside Power and Prepare to Energize the Vessel	岸方 shore		
		摇入 A601 6.6kV 系统输出柜断路器，断路器由分位变合位 Rotate the racking tool clockwise until the A601	岸方 shore		

		breaker is in place and Energize the shoreside A601 breaker			
2	船方放下岸电连接电缆 Deploy and Connect Cable and Plugs	船方确认岸电连接电缆绝缘良好，船方放下岸电连接电缆 Deploy and Connect Cable and Plugs while confirming the Cable in good condition	☆船方 ☆ship		
3	岸方固定、连接电缆 Connect the cable reel plugs to the shore power receptacles.	岸方固定连接电缆，并插入岸电接电箱，取下机械联锁钥匙 Connect the cable reel plugs to the shore power receptacles and remove the key between 611 and CAVOTEC' SOCKET	岸方 shore		
4	岸方确定安全回路接通 Test the interlocks	岸方确定安全回路接通 Make sure the interlocks is OK on the shoreside	岸方 shore		
5	船方确定安全回路接通 Test the interlocks	船方确定安全回路接通 Make sure the interlocks is OK on the side of ship	☆船方 ☆ship		
6	船方确认状态，发送送电指令 Send power while Approved by the ship	船方确认船上联络柜接地刀合位变分位，只有 1 台发电机运行，通导设备已关闭,负载不大于 3200kW Verify that the earthing bar is opened , reduce to the capacity of one generator and the load lwss than 3200kw	☆船方 ☆ship		
		船方发送送电指令 Verify that the earthing bar is opened , reduce to the capacity of one generator and the load lwss than 3200kw			
7	岸方送电 power transmission	使用机械联锁钥匙打开 A611/A612 6.6kV 岸电馈线柜接地刀锁，将接地刀由合位变分位 Open the Earthing bar of A611/A612	岸方 shore		
		摇入 A611/A612 6.6kV 岸电馈线柜断路器至运行位置，断路器分位变合位 Rotate the racking tool clockwise until the A611/A612 breaker is in place and	岸方 shore		

		Energize the shoreside A611/A612 breaker			
8	船方安全回路测试（船方无要求可省略） Test the interlocks(it can be omitted if no requiretments)	船方按下船侧紧停按钮 Pull the emergency shoutdown on the shipside	☆船方 ☆ship		
		岸方确认 A611/A612 6.6kV 馈线柜断路器合位变分位 Confirm that breaker of A611/A612 is break	岸方 shore		
		船方紧停按钮复位，恢复安全回路 Reset the enmergency shoutdown and Restore interlocks	☆船方 ☆ship		
		等待船方送电指令 Waiting for ship's power transmission instruction	☆船方 ☆ship		
		A611/A612 6.6kV 馈线柜断路器分位变合位 Energize the shoreside A611/A612 breaker	岸方 shore		
9	船方进行岸电并网操作 Prepare to Energize the Vessel	船上操作人员确定电压、频率、相序是否符合并网要求 Determine whether the voltage, frequency and phase sequence meet the requirements for grid connection	☆船方		
		如不符合并网要求，由岸电电源进行调整 Be adjusted by shoreside if the power is not available	岸方 shore		
		如符合并网要求，由船方操作人员按岸电船基操作流程进行岸电并网，船电解列 Operators of ship connect shore power according to arrangements while meeting requirements for AMP	☆船方 ☆ship		
10	记录电度表数据 Recording power consumption	记录电度表 Recording power consumption by Watt-hour meter	岸方 shore		

11	岸电为船舶供电 Send Power to the ship	对岸电设备各相关数据进行监测 Monitor the relevant data of shore power equipment	岸方 shore		
二、岸电解列					
序号 NO	操作指令 Operating Instructions	具体操作步骤 Operating Procedures	操作单位 Operator	操作人员	操作时间
1	船方进行岸电电源解列 Prepare to Disconnection	船方通知岸方准备进行岸电解列 Ship noticed the shoreside to prepare to disconnect the shore power	☆船方 ☆ship		
		船方按照岸电船基操作流程进行船电并网，岸电解列 Electrical load transfers from the shore power to the oncoming generat			
		岸电解列成功后，通知岸方停止岸电供电 Disconnect from shore power			
2	岸方停止岸电电源供电 Stop sending power	A611/A612 6.6kV 岸电馈线柜断路器由合位变分位，摇出至试验位置 A611/A612 circuit breaker is open and the circuit breaker is racked out	岸方 shore		
		确认码头岸电接电箱无来电显示 Confirm that the shoreside has been poweroff	岸方 shore		
		A611/A612 6.6kV 岸电馈线柜接地刀分位变合位，并将接地刀锁住，取下机械联锁钥匙 Open earthing bar of A611/A612 and lock it ,take the key away	岸方 shore		
		A601 6.6kV 系统输出柜断路器由合位变分位，摇出至试验位置 A601 circuit breaker is open and the circuit breaker is racked out	岸方 shore		
		停止岸电电源输出 Turn off the AMP system	岸方 shore		
		601 6kV 进线柜断路器由合位变分位，摇出至试验位置 601 circuit breaker is open and	岸方 shore		

		the circuit breaker is racked out			
		按照操作顺序依次关闭岸电设备的控制回路电源 Take turns to turn off LV power of the equipment	岸方 shore		
		记录电度表读数 Recording Value of Watt-hour meter	岸方 shore		
3	岸方拆除连接电缆 Disconnect the plugs	岸电断电 15 分钟后，将机械联锁钥匙插入接线箱，拔出岸电连接电缆，解除电缆固定 Prepare the plugs for retrieval by re-installing the plug covers and pulling the protective sleeves back over the plugs after 15min later.	岸方 shore		
4	船方收回岸电电缆 Retrieve Shore Power Cables	船方收回岸电连接电缆 Retrieve Shore Power Cables	☆船方 ☆ship		