ROSETTI MARINO

1	NO COMMENTS - APPROVED - WORK MAY PROCEED
2	MINOR COMMENTS - REVISE AND RESUBMIT - WORK MAY PROCEED
3	MAJOR COMMENTS – REJECTED – DO NOT PROCEED
4	APPROVAL NOT REQUIRED

NOTE: Approval doesn't relieve the supplier from mandatory compliance with contractual documents and specifications. Comments made do not imply acceptance of any cost or delivery impact.

Sign	Date
	07-01-2025

Base Load Power Hub (BLPH)

Water Treatment Package A-50000 Cause & effect Matrix

Document Number: 1724000448-MAC-CE-00004

Document Class: 3

Rev.	Date	Description	Prepared	Reviewed	Approved
03	25/11/2024	Issue for Information (IFI)	PSC	WR	RM
02	04/10/2024	Issue for Information (IFI)	PSC	WR	RM
01	22/08/2024	Issue for Information (IFI)	PSC	WR	RM
00	03/06/2024	Issue for Information (IFI)	PSC	WR	RM

PSC

DOC. REF. PK2885-B-003

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Revision / Change Log

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00	ISSUE FOR INFORMATION (IFI)
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02	ISSUE FOR INFORMATION (IFI)
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HOLDS LIST

No.	Description
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Notes:

1) Abbreviation

CCR = CENTRAL CONTROL ROOM (ONSHORE)
OER = ONSHORE EQUIPMENT ROOM
ITER = OFFSHORE CONTROL ROOM
R = RESET
EL = EVENT LOG
F = FLASHING LIGHT INDICATION ON CAP
T = TIME DELAY
F&G = Fire and Gas
HMI = Human Machinery Interface

2) Voting logic degradation (to be applied to F&G detection):

a) in case of a MooN Loop, the F&G logic degradation will be as follow:
b) Detector in fault condition: (M-1)oo(N-1) if N≤3
c) 2 (Two) Detectors in fault condition→ "Trip Logic" if N≤3
d) Detector in fault condition: Moo(N-1) if N>3
e) Detector in by-pass condition: (M-1)oo(N-1) if N≤3 (with Loop 2oo3)
g) Detector in by-pass condition: Moo(N-1) if N≤3 (with Loop 1oo2)
h) Detector in by-pass condition: Moo(N-1) if N>3

3) Software push button for RESET F&G logics on HMI is provided

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Water Treatment Package A-50000
Cause & effect Matrix

FZ-01= FUEL CELL AREA
FZ-02= H2 STORAGE VESSELS AREA
FZ-03= ELECTROLYZER AREA
FZ-04= B-200/B-300/B-400 CONTAINERS AREA
FZ-05= BESS AREA
FZ-06= B-100 CONTAINER AREA
FZ-07= MASTER POINT AREA
FZ-08= TRANSITION PIECE AREA

EFFECT

NOTES:

1. Only if SWRO system is in flushing (50-XV-023 open or 50-XV-024 open)
2.No Start
3. In column named "remark" interlock tag numbers are indicated
4. With delay timer of 30 days
5. Only Hardwire

TAG Nos	REV.	CAUSE					33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70
		DESCRIPTION	VOTING	INHIBITION	REMARK	TAG No.	50-XV-033	50-XV-034	50-XV-027	50-XV-030	50-XV-035	50-XV-020	A-50003	S-50001	S-50004	HHS-50003A	HHS-50003B	HFA-50001A	HFA-50001B	HFA-50001C	S-50010	H-50001	P-50002A	P-50002B	P-50003A	P-50003B	50-XV-025	50-XV-026	P-50009A	P-50009B	50-XV-031	50-XV-032	P-50004A	P-50004B	P-50005A	P-50005B	P-50006A	P-50006B	P-50007A	P-50007B	P-50008A	P-50008B	P-50010A	P-50010B
		SYS					OTHER																																					
		NOTES																							Note 1	Note 1											Note 2	Note 2						
		DESCRIPTION					OPEN DRAIN VALVE 50-XV-033	OPEN DRAIN VALVE 50-XV-034	OPEN DRAIN VALVE 50-XV-027	OPEN DRAIN VALVE 50-XV-030	OPEN DRAIN VALVE 50-XV-035	CLOSE BATTERY LIMIT VALVE 50-XV-020	TRIP COARSE FILTER A-50003	TRIP SAND FILTER S-50001	TRIP SOFTENING FILTER S-50004	CONTAINER ELECTRICAL HEATER TRIP	CONTAINER ELECTRICAL HEATER TRIP	CONTAINER AIR FAN TRIP	CONTAINER AIR FAN TRIP	CONTAINER AIR FAN TRIP	TRIP UV LAMP S-50010	TRIP HEATER H-50001	STOP PUMP P-50002A	STOP PUMP P-50002B	STOP PUMP P-50003A	STOP PUMP P-50003B	CLOSE FORWARD VALVE 50-XV-025	OPEN OF-SPEC VALVE 50-XV-026	STOP PUMP P-50009A	STOP PUMP P-50009B	CLOSE FORWARD VALVE 50-XV-031	OPEN OF-SPEC VALVE 50-XV-032	STOP PUMP P-50004A	STOP PUMP P-50004B	STOP PUMP P-50005A	STOP PUMP P-50005B	STOP PUMP P-50006A	STOP PUMP P-50006B	STOP PUMP P-50007A	STOP PUMP P-50007B	STOP PUMP P-50008A	STOP PUMP P-50008B	STOP PUMP P-50010A	STOP PUMP P-50010B
50-TIHH-022	1	H-50001 OUTLET TEMPERATURE HIGH HIGH			I-001	1																X																						
50-LILL-020	1	T-50006 LOW LOW LEVEL			I-002	2																	X	X	X	X							X	X										
50-AIHH-024	1	CONDUCTIVITY VALUE HIGH HIGH			I-003	3																					X	X																
50-LILL-021	1	T-50008 LOW LOW LEVEL			I-004	4																			X(1)	X(1)			X	X														
50-AIHH-026	1	TOTAL HARDNESS VALUE HIGH HIGH			I-005	5																									X	X												
50-AIHH-027	1	pH VALUE HIGH HIGH			I-006	6																									X	X												
50-AILL-027	1	pH VALUE LOW LOW			I-007	7																									X	X												
50-LILL-022	1	T-50002 LOW LOW LEVEL			I-008	8																													X	X								
50-LILL-023	1	T-50003 LOW LOW LEVEL			I-009	9																															X	X						
50-LILL-024	1	T-50004 LOW LOW LEVEL			I-010	10																																	X	X	X	X	X	X
50-TSHH-020	1	HEATER (H-50001) ELEMENT SKIN TEMPERATURE HIGH HIGH			I-011	11																X																						
50-XZAL-020	1	50-XV-020 CLOSED			I-012	12	X(4)	X(4)	X(4)	X(4)	X(4)																	X(4)			X(4)	X(4)								X	X				
50-PILL-026	1	PRESSURE LOW LOW VALUE			I-013	13																											X											
50-PILL-028	1	PRESSURE LOW LOW VALUE			I-014	14																												X										
50-XZAL-021 AND 50-XZAL-022	1	50-XV-021 AND 50-XV-022 CLOSED			I-015	15																															X(2)	X(2)						
DELETED	3	SYSTEM LONG STOP <3> (DELETED)			~~I-016~~	~~16~~																																						
50-XS-001	2	SHUTDOWN SIGNAL <3>			I-017	17	X	X	X	X	X	X	X(5)	X(5)	X(5)	X(5)	X(5)	X(5)	X(5)	X(5)	X(5)	X(5)	X(5)	X(5)	X(5)	X(5)		X	X(5)	X(5)	X	X	X(5)	X(5)	X(5)	X(5)	X(5)	X(5)	X(5)	X(5)	X(5)	X(5)	X(5)	X(5)	X(5)	X(5)
50-XI-500009A	2	P-50009A RUNNING			I-018	18																							X(2)															
50-XI-500009B	2	P-50009B RUNNING			I-019	19																							X(2)															
50-TIH-022	2	SEA WATER TEMPERATURE HIGH			I-020	20																					X	X																
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LEGEND

Rev.	Date	Status	Description	DRN	CHKD	APPD
00	03/06/2024	IFI	Issue for Information (IFI)	PSC	WR	RM
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CROSSWIND | ROSETTI MARINO

Water Treatment Package A-50000 Cause & effect Matrix

DATE 04/10/2024

HOLLANDSE KUST NOORD WIND PARK Project
Contract No. CW-I-WP4-2023-05

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