



**Resalat Oil Field Development Project
Phase 1 (EPC-EPD)**



Contract
No.

Electrical Signal Interface List

Class 2

5365

Pr. Code	Area	Disc.	Type	Seq.	Rev.
LRSL	R1X	EL	LI	005	00

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Electrical Signal Interface List

					<i>S.S.</i>	<i>A.S.</i>	<i>M.A.</i>	
00	06-Jul-21	Issued for Comment	IOEC	-	S.Saffari	A.Samadi	M.Aghaei	-
REV.	Date	Purpose of Issue	ORIG.	BY	PREP'D	CHECK'D	APP'D	COMPANY APP'D



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1. INTRODUCTION

1.1. Development Overview

The Resalat Field previously known as Rakhsh Field, is located in the Persian Gulf, some 80 km to the South of Lavan Island, in water depth of 65-75 meters. The facilities which were originally developed in 1968 have sustained some damage due to the Iran/Iraq war and adverse climate conditions thereafter.

To increase oil production capacity from this field (adding 12,000 stock barrels per day to current production), Iranian Offshore Oil Company (IOOC) has defined new project which includes Engineering, Drilling, Procurement, Construction for following items:

- New satellite Wellhead Platform (WHP1) with totally nine (9) conductor slots.
- Development and renovation of Existing offshore complex consist of new power generation, control system, HVAC, Electrical /control room, electrical panels (LV &MV), process & utility piping, and all necessary activities which shall be done for connection to existing facilities (Tie in requirements).
- Drilling of two new production wells in R1 and three wells in WHP1 platform and Re-entry and work-over of one existing well in R1 platform.
- One 10” productions submarine pipeline from WHP1 to PP and a single submarine cable (power and data) from SP to WHP1
- Inspection, Strengthening, Modification and Repair of existing R1 complex Jackets and topsides and replacement of boatlanding and Barge Bumpers.

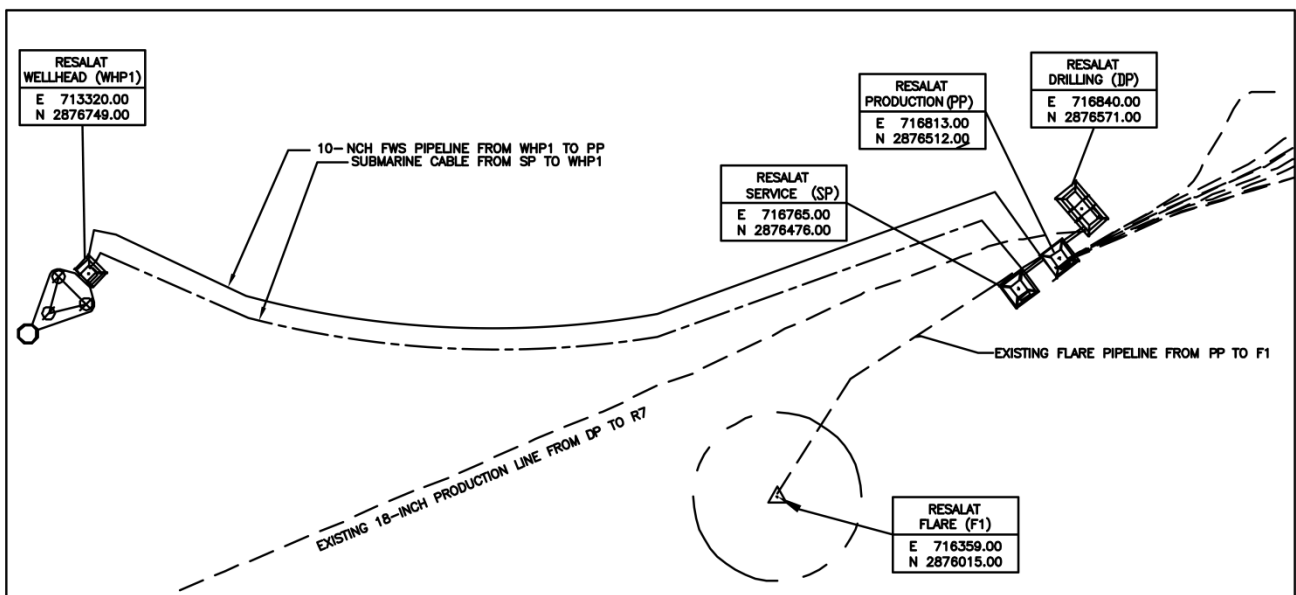


Figure 1: Resalat Development Field Layout (Datum ED 77, Zone 39, Cent. Meridian 51° East)



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1.2. Purpose of Scope

The purpose of this document is to present Electrical Signal Interface List.

1.3. Definitions

PROJECT	Resalat Oil Field Development – Phase 1
COMPANY	Iranian Offshore Oil Company (IOOC)
CONTRACTOR	Consortium of Iranian Offshore Engineering and Construction Company (IOEC) and Intelligent Solutions Inc. (ISI)
SUB-CONTRACTOR	Tehran Raymand Consulting Engineers (TRCE)
PURCHASER	Any firm who buy services, material and/or equipment for execution of the project within a dedicated contract.
SUPPLIER	Any vendor, manufacturer who supply any Service, Material or Equipment for the project
SHALL	Refer to a mandatory requirement
SHOULD	Refer to a recommendation
MAY	Refer to one acceptable course of action

2. REFERENCE DOCUMENTS

LRSL-000-EL-DB-603	Electrical Design Criteria
LRSL-000-PR-DB-706	Process Design Basis
LRSL-R1X-EL-SD-007	Overall Single Line Diagram
LRSL-R1X-EL-SM-002	Schematic diagram for LV Switchgear
LRSL-R1X-EL-SM-001	Schematic diagram for MV Switchgear
LRSL-R1X-EL-LI-003	I/O list for PMS
LRSL-R1X-IN-LI-003	R1 I/O List for DCS, ESD



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3. CLIMATE CONDITION

Electrical equipment shall be designed in due consideration of the geographical, meteorological and other site-specific conditions as described in the Process Design Basis (LRS�-000-PR-DB-706) and Electrical Design Criteria (LRS�-000-EL-DB-603).

4. ELECTRICAL SIGNAL INTERFACE LIST

Electrical signal interface list has been presented in table 1. In this document, electrical signals except PMS signals has been presented and PMS signal list has been presented in the document “I/O list for PMS”.



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Table 1 – Signal Interface List

GENERATOR #1 SIGNAL LIST

Item	Rev.	Signal Description	From	To	Class	Protocol	Remark
1	00	Voltage Sample	LRS�-11-MC-0301 (INC.1)	Gen.#1 Control Panel	PT secondary	Hardwire	
2	00	Current Sample	LRS�-11-MC-0301 (INC.1)	Gen.#1 Control Panel	CT secondary	Hardwire	
3	00	Voltage Sample	LRS�-11-MC-0301 (INC.1)	Gen.#1 Synch. Panel	PT secondary	Hardwire	
4	00	Voltage Sample	LRS�-11-MC-0301 (Busbar)	Gen.#1 Synch. Panel	PT secondary	Hardwire	
5	00	Voltage Sample	LRS�-11-MC-0301 (INC.1)	Gen.#1 Protection Panel	PT secondary	Hardwire	
6	00	Current Sample	LRS�-11-MC-0301 (INC.1)	Gen.#1 Protection Panel	CT secondary	Hardwire	
7	00	CB Open Status	LRS�-11-MC-0301 (INC.1)	Gen.#1 Control and Protection panel	Status	Hardwire	
8	00	CB Close Status	LRS�-11-MC-0301 (INC.1)	Gen.#1 Control and Protection panel	Status	Hardwire	
9	00	CB in Service	LRS�-11-MC-0301 (INC.1)	Gen.#1 Control and Protection panel	Status	Hardwire	
10	00	CB in Test	LRS�-11-MC-0301 (INC.1)	Gen.#1 Control and Protection panel	Status	Hardwire	
11	00	CB available	LRS�-11-MC-0301 (INC.1)	Gen.#1 Control and Protection panel	Status	Hardwire	
12	00	ES open Status	LRS�-11-MC-0301 (INC.1)	Gen.#1 Control and Protection panel	Status	Hardwire	
13	00	ES Close Status	LRS�-11-MC-0301 (INC.1)	Gen.#1 Control and Protection panel	Status	Hardwire	
14	00	Lock out operated	LRS�-11-MC-0301 (INC.1)	Gen.#1 Control and Protection panel	Status	Hardwire	
15	00	CB Close command	Gen.#1 Synch. Panel	LRS�-11-MC-0301 (INC.1)	Command	Hardwire	
16	00	ES Close Permission	Gen.#1 Control and Protection panel	LRS�-11-MC-0301 (INC.1)	Permission	Hardwire	
17	00	CB Trip	Gen.#1 Protection Panel	LRS�-11-MC-0301 (INC.1)	Trip	Hardwire	Inter Trip
18	00	Emergency Shut Down	ESD (IRP Panel)	Gen. #1 Control and Protection panel	Trip	Hardwire	ESD-101A/B



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GENERATOR#2 SIGNAL LIST

Item	Rev.	Signal Description	From	To	Class	Protocol	Remark
1	00	Voltage Sample	LRS�-11-MC-0301 (INC.2)	Gen.#2 Control Panel	PT secondary	Hardwire	
2	00	Current Sample	LRS�-11-MC-0301 (INC.2)	Gen.#2 Control Panel	CT secondary	Hardwire	
3	00	Voltage Sample	LRS�-11-MC-0301 (INC.2)	Gen.#2 Synch. Panel	PT secondary	Hardwire	
4	00	Voltage Sample	LRS�-11-MC-0301 (Busbar)	Gen.#2 Synch. Panel	PT secondary	Hardwire	
5	00	Voltage Sample	LRS�-11-MC-0301 (INC.2)	Gen.#2 Protection Panel	PT secondary	Hardwire	
6	00	Current Sample	LRS�-11-MC-0301 (INC.2)	Gen.#2 Protection Panel	CT secondary	Hardwire	
7	00	CB Open Status	LRS�-11-MC-0301 (INC.2)	Gen.#2 Control and Protection panel	Status	Hardwire	
8	00	CB Close Status	LRS�-11-MC-0301 (INC.2)	Gen.#2 Control and Protection panel	Status	Hardwire	
9	00	CB in Service	LRS�-11-MC-0301 (INC.2)	Gen.#2 Control and Protection panel	Status	Hardwire	
10	00	CB in Test	LRS�-11-MC-0301 (INC.2)	Gen.#2 Control and Protection panel	Status	Hardwire	
11	00	CB available	LRS�-11-MC-0301 (INC.2)	Gen.#2 Control and Protection panel	Status	Hardwire	
12	00	ES open Status	LRS�-11-MC-0301 (INC.2)	Gen.#2 Control and Protection panel	Status	Hardwire	
13	00	ES Close Status	LRS�-11-MC-0301 (INC.2)	Gen.#2 Control and Protection panel	Status	Hardwire	
14	00	Lock out operated	LRS�-11-MC-0301 (INC.2)	Gen.#2 Control and Protection panel	Status	Hardwire	
15	00	CB Close command	Gen.#2 Synch. Panel	LRS�-11-MC-0301 (INC.2)	Command	Hardwire	
16	00	ES Close Permission	Gen.#2 Control and Protection panel	LRS�-11-MC-0301 (INC.2)	Permission	Hardwire	
17	00	CB Trip	Gen.#2 Protection Panel	LRS�-11-MC-0301 (INC.2)	Trip	Hardwire	Inter Trip
18	00	Emergency Shut Down	ESD (IRP Panel)	Gen. #2 Control and Protection panel	Trip	Hardwire	ESD-101A/B



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GENERATOR#3 SIGNAL LIST

Item	Rev.	Signal Description	From	To	Class	Protocol	Remark
1	00	Voltage Sample	LRS�-11-MC-0301 (INC.3)	Gen.#3 Control Panel	PT secondary	Hardwire	
2	00	Current Sample	LRS�-11-MC-0301 (INC.3)	Gen.#3 Control Panel	CT secondary	Hardwire	
3	00	Voltage Sample	LRS�-11-MC-0301 (INC.3)	Gen.#3 Synch. Panel	PT secondary	Hardwire	
4	00	Voltage Sample	LRS�-11-MC-0301 (Busbar)	Gen.#3 Synch. Panel	PT secondary	Hardwire	
5	00	Voltage Sample	LRS�-11-MC-0301 (INC.3)	Gen.#3 Protection Panel	PT secondary	Hardwire	
6	00	Current Sample	LRS�-11-MC-0301 (INC.3)	Gen.#3 Protection Panel	CT secondary	Hardwire	
7	00	CB Open Status	LRS�-11-MC-0301 (INC.3)	Gen.#3 Control and Protection panel	Status	Hardwire	
8	00	CB Close Status	LRS�-11-MC-0301 (INC.3)	Gen.#3 Control and Protection panel	Status	Hardwire	
9	00	CB in Service	LRS�-11-MC-0301 (INC.3)	Gen.#3 Control and Protection panel	Status	Hardwire	
10	00	CB in Test	LRS�-11-MC-0301 (INC.3)	Gen.#3 Control and Protection panel	Status	Hardwire	
11	00	CB available	LRS�-11-MC-0301 (INC.3)	Gen.#3 Control and Protection panel	Status	Hardwire	
12	00	ES open Status	LRS�-11-MC-0301 (INC.3)	Gen.#3 Control and Protection panel	Status	Hardwire	
13	00	ES Close Status	LRS�-11-MC-0301 (INC.3)	Gen.#3 Control and Protection panel	Status	Hardwire	
14	00	Lock out operated	LRS�-11-MC-0301 (INC.3)	Gen.#3 Control and Protection panel	Status	Hardwire	
15	00	CB Close command	Gen.#3 Synch. Panel	LRS�-11-MC-0301 (INC.3)	Command	Hardwire	
16	00	ES Close Permission	Gen.#3 Control and Protection panel	LRS�-11-MC-0301 (INC.3)	Permission	Hardwire	
17	00	CB Trip	Gen.#3 Protection Panel	LRS�-11-MC-0301 (INC.3)	Trip	Hardwire	Inter Trip
18	00	Emergency Shut Down	ESD (IRP Panel)	Gen. #3 Control and Protection panel	Trip	Hardwire	ESD-101A/B



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6.6/2.2kV TRANSFORMER SIGNAL LIST

Item	Rev.	Signal Description	From	To	Class	Protocol	Remark
1	00	Earth Current Sample	CT in NGR	LR1-RP-MVS01	CT Secondary	Hardwire	LRS�-11-TR-0301A
2	00	Earth Current Sample	CT in NGR	LR1-RP-MVS01	CT Secondary	Hardwire	LRS�-11-TR-0301A
3	00	Earth Current Sample	CT in NGR	LR1-RP-MVS01	CT Secondary	Hardwire	LRS�-11-TR-0301B
4	00	Earth Current Sample	CT in NGR	LR1-RP-MVS01	CT Secondary	Hardwire	LRS�-11-TR-0301B
5	00	Oil Temp. Alarm	Transformer DGPT2	LRS�-11-MC-0301	Alarm	Hardwire	LRS�-11-TR-0301A
6	00	Winding Temp. Alarm	Transformer DGPT2	LRS�-11-MC-0301	Alarm	Hardwire	LRS�-11-TR-0301A
7	00	Oil level min. Alarm	Transformer DGPT2	LRS�-11-MC-0301	Alarm	Hardwire	LRS�-11-TR-0301A
8	00	Oil level max. Alarm	Transformer DGPT2	LRS�-11-MC-0301	Alarm	Hardwire	LRS�-11-TR-0301A
9	00	Oil Temp. Alarm	Transformer DGPT2	LRS�-11-MC-0301	Alarm	Hardwire	LRS�-11-TR-0301B
10	00	Winding Temp. Alarm	Transformer DGPT2	LRS�-11-MC-0301	Alarm	Hardwire	LRS�-11-TR-0301B
11	00	Oil level min. Alarm	Transformer DGPT2	LRS�-11-MC-0301	Alarm	Hardwire	LRS�-11-TR-0301B
12	00	Oil level max. Alarm	Transformer DGPT2	LRS�-11-MC-0301	Alarm	Hardwire	LRS�-11-TR-0301B
13	00	Oil Temp. Trip	Transformer DGPT2	LRS�-11-MC-0301	Trip	Hardwire	LRS�-11-TR-0301A
14	00	Winding Temp. Trip	Transformer DGPT2	LRS�-11-MC-0301	Trip	Hardwire	LRS�-11-TR-0301A
15	00	Sudden Gas Pressure Trip	Transformer DGPT2	LRS�-11-MC-0301	Trip	Hardwire	LRS�-11-TR-0301A
16	00	Pressure Relief Trip	Transformer DGPT2	LRS�-11-MC-0301	Trip	Hardwire	LRS�-11-TR-0301A
17	00	Oil Temp. Trip	Transformer DGPT2	LRS�-11-MC-0301	Trip	Hardwire	LRS�-11-TR-0301B
18	00	Winding Temp. Trip	Transformer DGPT2	LRS�-11-MC-0301	Trip	Hardwire	LRS�-11-TR-0301B
19	00	Sudden Gas Pressure Trip	Transformer DGPT2	LRS�-11-MC-0301	Trip	Hardwire	LRS�-11-TR-0301B
20	00	Pressure Relief Trip	Transformer DGPT2	LRS�-11-MC-0301	Trip	Hardwire	LRS�-11-TR-0301B



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6.6/0.42kV TRANSFORMER SIGNAL LIST

Item	Rev.	Signal Description	From	To	Class	Protocol	Remark
1	00	Earth Current Sample	NCT of Transformer	LR1-RP-LV01	CT Secondary	Hardwire	LRS�-11-TR-0302A
2	00	Earth Current Sample	NCT of Transformer	LR1-RP-LV01	CT Secondary	Hardwire	LRS�-11-TR-0302B
3	00	Oil Temp. Alarm	Transformer DGPT2	LRS�-11-MC-0301	Alarm	Hardwire	LRS�-11-TR-0302A
4	00	Winding Temp. Alarm	Transformer DGPT2	LRS�-11-MC-0301	Alarm	Hardwire	LRS�-11-TR-0302A
5	00	Oil level min. Alarm	Transformer DGPT2	LRS�-11-MC-0301	Alarm	Hardwire	LRS�-11-TR-0302A
6	00	Oil level max. Alarm	Transformer DGPT2	LRS�-11-MC-0301	Alarm	Hardwire	LRS�-11-TR-0302A
7	00	Oil Temp. Alarm	Transformer DGPT2	LRS�-11-MC-0301	Alarm	Hardwire	LRS�-11-TR-0302B
8	00	Winding Temp. Alarm	Transformer DGPT2	LRS�-11-MC-0301	Alarm	Hardwire	LRS�-11-TR-0302B
9	00	Oil level min. Alarm	Transformer DGPT2	LRS�-11-MC-0301	Alarm	Hardwire	LRS�-11-TR-0302B
10	00	Oil level max. Alarm	Transformer DGPT2	LRS�-11-MC-0301	Alarm	Hardwire	LRS�-11-TR-0302B
11	00	Oil Temp. Trip	Transformer DGPT2	LRS�-11-MC-0301	Trip	Hardwire	LRS�-11-TR-0302A
12	00	Winding Temp. Trip	Transformer DGPT2	LRS�-11-MC-0301	Trip	Hardwire	LRS�-11-TR-0302A
13	00	Sudden Gas Pressure Trip	Transformer DGPT2	LRS�-11-MC-0301	Trip	Hardwire	LRS�-11-TR-0302A
14	00	Pressure Relief Trip	Transformer DGPT2	LRS�-11-MC-0301	Trip	Hardwire	LRS�-11-TR-0302A
15	00	Oil Temp. Trip	Transformer DGPT2	LRS�-11-MC-0301	Trip	Hardwire	LRS�-11-TR-0302B
16	00	Winding Temp. Trip	Transformer DGPT2	LRS�-11-MC-0301	Trip	Hardwire	LRS�-11-TR-0302B
17	00	Sudden Gas Pressure Trip	Transformer DGPT2	LRS�-11-MC-0301	Trip	Hardwire	LRS�-11-TR-0302B
18	00	Pressure Relief Trip	Transformer DGPT2	LRS�-11-MC-0301	Trip	Hardwire	LRS�-11-TR-0302B



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6.6kV SWITHCGEAR (LRS�-11-MC-0301) SIGNAL LIST

Item	Rev.	Signal Description	From	To	Class	Protocol	Remark
1	00	CB Close Status	LRS�-11-MC-0301 (OUT.)	LR1-RP-LV01 (INC.A)	Status	Hardwire	Interlock
2	00	CB Open Status	LRS�-11-MC-0301 (OUT.)	LR1-RP-LV01 (INC.A)	Status	Hardwire	Interlock
3	00	CB Open Status	LR1-RP-LV01 (INC.A)	LRS�-11-MC-0301 (OUT.)	Status	Hardwire	Interlock
4	00	ES Open Status	LR1-RP-LV01 (INC.A)	LRS�-11-MC-0301 (OUT.)	Status	Hardwire	Interlock
5	00	CB Close Status	LRS�-11-MC-0301 (OUT.)	LR1-RP-LV01 (INC.B)	Status	Hardwire	Interlock
6	00	CB Open Status	LRS�-11-MC-0301 (OUT.)	LR1-RP-LV01 (INC.B)	Status	Hardwire	Interlock
7	00	CB Open Status	LR1-RP-LV01 (INC.B)	LRS�-11-MC-0301 (OUT.)	Status	Hardwire	Interlock
8	00	ES Open Status	LR1-RP-LV01 (INC.B)	LRS�-11-MC-0301 (OUT.)	Status	Hardwire	Interlock
9	00	CB Close Status	LRS�-11-MC-0301 (OUT.)	LR1-RP-MVS01 (INC.A)	Status	Hardwire	Interlock
10	00	CB Open Status	LRS�-11-MC-0301 (OUT.)	LR1-RP-MVS01 (INC.A)	Status	Hardwire	Interlock
11	00	CB Open Status	LR1-RP-MVS01 (INC.A)	LRS�-11-MC-0301 (OUT.)	Status	Hardwire	Interlock
12	00	ES Open Status	LR1-RP-MVS01 (INC.A)	LRS�-11-MC-0301 (OUT.)	Status	Hardwire	Interlock
13	00	CB Close Status	LRS�-11-MC-0301 (OUT.)	LR1-RP-MVS01 (INC.B)	Status	Hardwire	Interlock
14	00	CB Open Status	LRS�-11-MC-0301 (OUT.)	LR1-RP-MVS01 (INC.B)	Status	Hardwire	Interlock
15	00	CB Open Status	LR1-RP-MVS01 (INC.B)	LRS�-11-MC-0301 (OUT.)	Status	Hardwire	Interlock
16	00	ES Open Status	LR1-RP-MVS01 (INC.B)	LRS�-11-MC-0301 (OUT.)	Status	Hardwire	Interlock
17	00	CB Trip	LRS�-11-MC-0301 (OUT.)	LR1-RP-LV01(INC.A)	Trip	Hardwire	Inter Trip
18	00	CB Trip	LRS�-11-MC-0301 (OUT.)	LR1-RP-LV01(INC.B)	Trip	Hardwire	Inter Trip
19	00	CB Trip	LR1-RP-LV01 (INC.A)	LRS�-11-MC-0301 (OUT.)	Trip	Hardwire	Inter Trip
20	00	CB Trip	LR1-RP-LV01 (INC.B)	LRS�-11-MC-0301 (OUT.)	Trip	Hardwire	Inter Trip
21	00	CB Trip	LRS�-11-MC-0301 (OUT.)	LR1-RP-MVS01 (INC.A)	Trip	Hardwire	Inter Trip
22	00	CB Trip	LRS�-11-MC-0301 (OUT.)	LR1-RP-MVS01 (INC.B)	Trip	Hardwire	Inter Trip
23	00	CB Trip	LR1-RP-MVS01 (INC.A)	LRS�-11-MC-0301 (OUT.)	Trip	Hardwire	Inter Trip
24	00	CB Trip	LR1-RP-MVS01 (INC.B)	LRS�-11-MC-0301 (OUT.)	Trip	Hardwire	Inter Trip
25	00	Emergency Shut Down	ESD (IRP Panel)	LRS�-11-MC-0301 (INC.1)	Trip	Hardwire	ESD-101A/B
26	00	Emergency Shut Down	ESD (IRP Panel)	LRS�-11-MC-0301 (INC.2)	Trip	Hardwire	ESD-101A/B



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6.6kV SWITHCGEAR (LRS�-11-MC-0301) SIGNAL LIST

Item	Rev.	Signal Description	From	To	Class	Protocol	Remark
27	00	Emergency Shut Down	ESD (IRP Panel)	LRS�-11-MC-0301 (INC.3)	Trip	Hardwire	ESD-101A/B



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0.42kV SWITHCGEAR (LRS�-11-MC-0101) SIGNAL LIST

Item	Rev.	Signal Description	From	To	Class	Protocol	Remark
1	00	Remote Start	DCS (IRP Panel)	LRS�-11-MC-0101	Command	Hardwire	LRS�-AC-1201
2	00	Remote Stop	DCS (IRP Panel)	LRS�-11-MC-0101	Command	Hardwire	LRS�-AC-1201
3	00	Remote LOC/REM Selection	DCS (IRP Panel)	LRS�-11-MC-0101	Command	Hardwire	LRS�-AC-1201
4	00	DCS Output to MCC	DCS (IRP Panel)	LRS�-11-MC-0101	Command	Hardwire	LRS�-AC-1201
5	00	DCS Indicator (Running)	LRS�-11-MC-0101	DCS (IRP Panel)	Status	Hardwire	LRS�-AC-1201
6	00	DCS Alarm (Fault)	LRS�-11-MC-0101	DCS (IRP Panel)	Status	Hardwire	LRS�-AC-1201
7	00	ESD Output to MCC	DCS (IRP Panel)	LRS�-11-MC-0101	Trip	Hardwire	LRS�-AC-1201
8	00	LCS Start/Stop command	LCS	LRS�-11-MC-0101	Command	Hardwire	LRS�-AC-1201
9	00	Remote Start	DCS (IRP Panel)	LRS�-11-MC-0101	Command	Hardwire	LRS�-P-1201 A
10	00	Remote Stop	DCS (IRP Panel)	LRS�-11-MC-0101	Command	Hardwire	LRS�-P-1201 A
11	00	Remote LOC/REM Selection	DCS (IRP Panel)	LRS�-11-MC-0101	Command	Hardwire	LRS�-P-1201 A
12	00	DCS Output to MCC	DCS (IRP Panel)	LRS�-11-MC-0101	Command	Hardwire	LRS�-P-1201 A
13	00	DCS Indicator (Running)	LRS�-11-MC-0101	DCS (IRP Panel)	Status	Hardwire	LRS�-P-1201 A
14	00	DCS Alarm (Fault)	LRS�-11-MC-0101	DCS (IRP Panel)	Status	Hardwire	LRS�-P-1201 A
15	00	ESD Output to MCC	DCS (IRP Panel)	LRS�-11-MC-0101	Trip	Hardwire	LRS�-P-1201 A
16	00	LCS Start/Stop command	LCS	LRS�-11-MC-0101	Command	Hardwire	LRS�-P-1201 A
17	00	Remote Start	DCS (IRP Panel)	LRS�-11-MC-0101	Command	Hardwire	LRS�-P-1201 B
18	00	Remote Stop	DCS (IRP Panel)	LRS�-11-MC-0101	Command	Hardwire	LRS�-P-1201 B
19	00	Remote LOC/REM Selection	DCS (IRP Panel)	LRS�-11-MC-0101	Command	Hardwire	LRS�-P-1201 B
20	00	DCS Output to MCC	DCS (IRP Panel)	LRS�-11-MC-0101	Command	Hardwire	LRS�-P-1201 B
21	00	DCS Indicator (Running)	LRS�-11-MC-0101	DCS (IRP Panel)	Status	Hardwire	LRS�-P-1201 B
22	00	DCS Alarm (Fault)	LRS�-11-MC-0101	DCS (IRP Panel)	Status	Hardwire	LRS�-P-1201 B
23	00	ESD Output to MCC	DCS (IRP Panel)	LRS�-11-MC-0101	Trip	Hardwire	LRS�-P-1201 B
24	00	LCS Start/Stop command	LCS	LRS�-11-MC-0101	Command	Hardwire	LRS�-P-1201 B
25	00	Remote Start	DCS (IRP Panel)	LRS�-11-MC-0101	Command	Hardwire	LRS�-P-1202 A
26	00	Remote Stop	DCS (IRP Panel)	LRS�-11-MC-0101	Command	Hardwire	LRS�-P-1202 A



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0.42kV SWITHCGEAR (LRS�-11-MC-0101) SIGNAL LIST

Item	Rev.	Signal Description	From	To	Class	Protocol	Remark
27	00	Remote LOC/REM Selection	DCS (IRP Panel)	LRS�-11-MC-0101	Command	Hardwire	LRS�-P-1202 A
28	00	DCS Output to MCC	DCS (IRP Panel)	LRS�-11-MC-0101	Command	Hardwire	LRS�-P-1202 A
29	00	DCS Indicator (Running)	LRS�-11-MC-0101	DCS (IRP Panel)	Status	Hardwire	LRS�-P-1202 A
30	00	DCS Alarm (Fault)	LRS�-11-MC-0101	DCS (IRP Panel)	Status	Hardwire	LRS�-P-1202 A
31	00	ESD Output to MCC	DCS (IRP Panel)	LRS�-11-MC-0101	Trip	Hardwire	LRS�-P-1202 A
32	00	LCS Start/Stop Command	LCS	LRS�-11-MC-0101	Command	Hardwire	LRS�-P-1202 A
33	00	Remote Start	DCS (IRP Panel)	LRS�-11-MC-0101	Command	Hardwire	LRS�-P-1202 B
34	00	Remote Stop	DCS (IRP Panel)	LRS�-11-MC-0101	Command	Hardwire	LRS�-P-1202 B
35	00	Remote LOC/REM Selection	DCS (IRP Panel)	LRS�-11-MC-0101	Command	Hardwire	LRS�-P-1202 B
36	00	DCS Output to MCC	DCS (IRP Panel)	LRS�-11-MC-0101	Command	Hardwire	LRS�-P-1202 B
37	00	DCS Indicator (Running)	LRS�-11-MC-0101	DCS (IRP Panel)	Status	Hardwire	LRS�-P-1202 B
38	00	DCS Alarm (Fault)	LRS�-11-MC-0101	DCS (IRP Panel)	Status	Hardwire	LRS�-P-1202 B
39	00	ESD Output to MCC	DCS (IRP Panel)	LRS�-11-MC-0101	Trip	Hardwire	LRS�-P-1202 B
40	00	LCS Start/Stop Command	LCS	LRS�-11-MC-0101	Command	Hardwire	LRS�-P-1202 B
41	00	Remote Start	DCS (IRP Panel)	LRS�-11-MC-0101	Command	Hardwire	LRS�-P-1203 A
42	00	Remote Stop	DCS (IRP Panel)	LRS�-11-MC-0101	Command	Hardwire	LRS�-P-1203 A
43	00	Remote LOC/REM Selection	DCS (IRP Panel)	LRS�-11-MC-0101	Command	Hardwire	LRS�-P-1203 A
44	00	DCS Output to MCC	DCS (IRP Panel)	LRS�-11-MC-0101	Command	Hardwire	LRS�-P-1203 A
45	00	DCS Indicator (Running)	LRS�-11-MC-0101	DCS (IRP Panel)	Status	Hardwire	LRS�-P-1203 A
46	00	DCS Alarm (Fault)	LRS�-11-MC-0101	DCS (IRP Panel)	Status	Hardwire	LRS�-P-1203 A
47	00	ESD Output to MCC	DCS (IRP Panel)	LRS�-11-MC-0101	Trip	Hardwire	LRS�-P-1203 A
48	00	LCS Start/Stop Command	LCS	LRS�-11-MC-0101	Command	Hardwire	LRS�-P-1203 A
49	00	Remote Start	DCS (IRP Panel)	LRS�-11-MC-0101	Command	Hardwire	LRS�-P-1203 B
50	00	Remote Stop	DCS (IRP Panel)	LRS�-11-MC-0101	Command	Hardwire	LRS�-P-1203 B
51	00	Remote LOC/REM Selection	DCS (IRP Panel)	LRS�-11-MC-0101	Command	Hardwire	LRS�-P-1203 B
52	00	DCS Output to MCC	DCS (IRP Panel)	LRS�-11-MC-0101	Command	Hardwire	LRS�-P-1203 B



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Item	Rev.	Signal Description	From	To	Class	Protocol	Remark
53	00	DCS Indicator (Running)	LRSL-11-MC-0101	DCS (IRP Panel)	Status	Hardwire	LRSL-P-1203 B
54	00	DCS Alarm (Fault)	LRSL-11-MC-0101	DCS (IRP Panel)	Status	Hardwire	LRSL-P-1203 B
55	00	ESD Output to MCC	DCS (IRP Panel)	LRSL-11-MC-0101	Trip	Hardwire	LRSL-P-1203 B
56	00	LCS Start/Stop Command	LCS	LRSL-11-MC-0101	Command	Hardwire	LRSL-P-1203 B
57	00	Remote Start	DCS (IRP Panel)	LRSL-11-MC-0101	Command	Hardwire	LRSL-P-1204
58	00	Remote Stop	DCS (IRP Panel)	LRSL-11-MC-0101	Command	Hardwire	LRSL-P-1204
59	00	Remote LOC/REM Selection	DCS (IRP Panel)	LRSL-11-MC-0101	Command	Hardwire	LRSL-P-1204
60	00	DCS Output to MCC	DCS (IRP Panel)	LRSL-11-MC-0101	Command	Hardwire	LRSL-P-1204
61	00	DCS Indicator (Running)	LRSL-11-MC-0101	DCS (IRP Panel)	Status	Hardwire	LRSL-P-1204
62	00	DCS Alarm (Fault)	LRSL-11-MC-0101	DCS (IRP Panel)	Status	Hardwire	LRSL-P-1204
63	00	ESD Output to MCC	DCS (IRP Panel)	LRSL-11-MC-0101	Trip	Hardwire	LRSL-P-1204
64	00	LCS Start/Stop Command	LCS	LRSL-11-MC-0101	Command	Hardwire	LRSL-P-1204
65	00	Remote Start	DCS (IRP Panel)	LRSL-11-MC-0101	Command	Hardwire	LRSL-P-1207
66	00	Remote Stop	DCS (IRP Panel)	LRSL-11-MC-0101	Command	Hardwire	LRSL-P-1207
67	00	Remote LOC/REM Selection	DCS (IRP Panel)	LRSL-11-MC-0101	Command	Hardwire	LRSL-P-1207
68	00	DCS Output to MCC	DCS (IRP Panel)	LRSL-11-MC-0101	Command	Hardwire	LRSL-P-1207
69	00	DCS Indicator (Running)	LRSL-11-MC-0101	DCS (IRP Panel)	Status	Hardwire	LRSL-P-1207
70	00	DCS Alarm (Fault)	LRSL-11-MC-0101	DCS (IRP Panel)	Status	Hardwire	LRSL-P-1207
71	00	ESD Output to MCC	DCS (IRP Panel)	LRSL-11-MC-0101	Trip	Hardwire	LRSL-P-1207
72	00	LCS Start/Stop Command	LCS	LRSL-11-MC-0101	Command	Hardwire	LRSL-P-1207
73	00	Remote Start	DCS (IRP Panel)	LRSL-11-MC-0101	Command	Hardwire	LRSL-P-1206
74	00	Remote Stop	DCS (IRP Panel)	LRSL-11-MC-0101	Command	Hardwire	LRSL-P-1206
75	00	Remote LOC/REM Selection	DCS (IRP Panel)	LRSL-11-MC-0101	Command	Hardwire	LRSL-P-1206
76	00	DCS Output to MCC	DCS (IRP Panel)	LRSL-11-MC-0101	Command	Hardwire	LRSL-P-1206
77	00	DCS Indicator (Running)	LRSL-11-MC-0101	DCS (IRP Panel)	Status	Hardwire	LRSL-P-1206
78	00	DCS Alarm (Fault)	LRSL-11-MC-0101	DCS (IRP Panel)	Status	Hardwire	LRSL-P-1206



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Item	Rev.	Signal Description	From	To	Class	Protocol	Remark
79	00	ESD Output to MCC	DCS (IRP Panel)	LRS L-11-MC-0101	Trip	Hardwire	LRS L-P-1206
80	00	LCS Start/Stop Command	LCS	LRS L-11-MC-0101	Command	Hardwire	LRS L-P-1206
81	00	Remote Start	DCS (IRP Panel)	LRS L-11-MC-0101	Command	Hardwire	LRS L-P-2101 A
82	00	Remote Stop	DCS (IRP Panel)	LRS L-11-MC-0101	Command	Hardwire	LRS L-P-2101 A
83	00	Remote LOC/REM Selection	DCS (IRP Panel)	LRS L-11-MC-0101	Command	Hardwire	LRS L-P-2101 A
84	00	DCS Output to MCC	DCS (IRP Panel)	LRS L-11-MC-0101	Command	Hardwire	LRS L-P-2101 A
85	00	DCS Indicator (Running)	LRS L-11-MC-0101	DCS (IRP Panel)	Status	Hardwire	LRS L-P-2101 A
86	00	DCS Alarm (Fault)	LRS L-11-MC-0101	DCS (IRP Panel)	Status	Hardwire	LRS L-P-2101 A
87	00	ESD Output to MCC	DCS (IRP Panel)	LRS L-11-MC-0101	Trip	Hardwire	LRS L-P-2101 A
88	00	LCS Start/Stop Command	LCS	LRS L-11-MC-0101	Command	Hardwire	LRS L-P-2101 A
89	00	Remote Start	DCS (IRP Panel)	LRS L-11-MC-0101	Command	Hardwire	LRS L-P-2101 B
90	00	Remote Stop	DCS (IRP Panel)	LRS L-11-MC-0101	Command	Hardwire	LRS L-P-2101 B
91	00	Remote LOC/REM Selection	DCS (IRP Panel)	LRS L-11-MC-0101	Command	Hardwire	LRS L-P-2101 B
92	00	DCS Output to MCC	DCS (IRP Panel)	LRS L-11-MC-0101	Command	Hardwire	LRS L-P-2101 B
93	00	DCS Indicator (Running)	LRS L-11-MC-0101	DCS (IRP Panel)	Status	Hardwire	LRS L-P-2101 B
94	00	DCS Alarm (Fault)	LRS L-11-MC-0101	DCS (IRP Panel)	Status	Hardwire	LRS L-P-2101 B
95	00	ESD Output to MCC	DCS (IRP Panel)	LRS L-11-MC-0101	Trip	Hardwire	LRS L-P-2101 B
96	00	LCS Start/Stop Command	LCS	LRS L-11-MC-0101	Command	Hardwire	LRS L-P-2101 B