


Project Name:	Northern LNG Receiving Terminal-Terminal Portion
Order:	04P9001-F0017
Client:	Ampower/CTCI
Equipment:	Emergency Diesel Generator

# Factory Inspection and Testing Report

Generator Model:	2800REOZD
Generator S/No.:	

Customer Comment:

- 1) Color of Panel is not as specified. Ampower will re-Spray to per Specified. Customer will supply color sample.
- 2) Customer request Modbus RS485 Address Mapping
- 3) Required a cut-out of 300 x 400 mm at the bottom of the panel a per drawing
- 4) To provide System Ok indication light
- 5) The factory inspection between the date of 15<sup>th</sup>, to 21 St. December exclude all test on the Generator and its accessories
- 6) Ampower to reschedule the arrival and inspection date of the Generator due to the re-schedule of the shipment date of the generator
- 7) Ampower to submit Self -Check Record to customer prior to their witness date

Tested By:	Kywan Khai Wah		
Name:	Kywan Khai Wah		
Signature:			
Date:	20/12/06		

Witness By:	Tung-Min Kao		
Name:	Tung-Min Kao	Signature:	T. M. Kao
Name:		Signature:	
Name:		Signature:	
Name:		Signature:	

Rev: 1.0	Ref.:
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## CLLS POWER SYSTEM LTD

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 Email: powersystem@clls.com.sg

### INSPECTION AND TEST RECORD FOR CONTROL PANEL

Item F. Control Panel

#### 1 Meter/Gauges

a) wait-hour Meter	OK	
b) Watt-Meter	OK	
c)Var Meter	OK	
d) Power Factor Meter	OK	
e) Ammeter	OK	
f) Ammeter Switch	NA	Item not required
g) Voltmeter	OK	
h) Volt Meter Switch	NA	Item not required
i) Frequency Meter	OK	
j) Running Meter	NA	To be fitted on the Engine Mounted Panel
k) Battery Charging Ammeter	OK	
l) Engine Speed Meter	NA	To be fitted on the Engine Mounted Panel
m) Lube Oil Pressure Gauge	NA	To be fitted on the Engine Mounted Panel
n) Lube Oil Temperature Gauge	NA	Not Fitted. Already deviated
o) Engine Water Temperature Gauge	NA	To be fitted on the Engine Mounted Panel
	OK	
p-2) Voltage Raise and Lower	OK	
p-3) Speed Raise and Lower	OK	

#### 2 Indication (Solid State Annunciator)

a) Low Lube Oil Pressure	OK	
b) High Cooling Water Temperature	OK	
c) Over Speed	OK	
d) Over Crank	OK	
e) Over Current	OK	
f) Over Load (winding Temperature: High/ High High by RTD)	OK	
g) Earth Fault	OK	
h) Emergency Stop	OK	
i)High/Low Fuel Oil Level	OK	
j) Abnormal DC Supply	OK	
k) Alarm Silence	OK	
l) System Ok	TBA	To be confirmed as this item is not shown on the customer requirement list
m) All alarms Should have the the capability to be individually repeated to the DCS	TBA	Item not tested

3 Operation Switches

a) Synchronizing Check Lamp	NA	Not Required as synchronizing Status is displayed on the Synchroscope
b) Synchronizing Selector Switch	OK	
c) Breaker Closing Switch	OK	
d) Voltage Raise/Lower and Speed Raise/Lower Switch	OK	
e) Emergency Stop Push Button	OK	
f) Auto/Manual/Off Selector Switch	OK	
g) Manual Start/Stop Push Button	OK	
h) Alarm Silence	OK	
i) Other		

4 Protection Relay and Protection

a) 51V Restricted Voltage Over Current Relay	OK	
b) 87 Differential Current Relay	OK	
c) 32 Reverse Power Relay	OK	
d) 46 Negative Phase Current Relay	OK	
e) 27/59 Under Voltage Relay	OK	
f) 51G Earth Fault Relay	OK	
g) Low Lub. Oil Pressure Shutdown	NA	Fitted on Engine Mounted Panel
i) High Water Temperature Shutdown	NA	Fitted on Engine Mounted Panel

5 Output Dry Contacts

a) Engine Running	OK	
b) Engine Trouble	OK	

6 Construction

a) Separately Mounted	OK	
b) IP21	OK	

Test By:



Witness By:

Name: Kundan K.V

Name: \_\_\_\_\_ Sign: T.M. Kav

Name: \_\_\_\_\_ Sign: \_\_\_\_\_



**CLLS**  
SINGAPORE

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### INSPECTION AND TEST RECORD FOR CONTROL PANEL

Project Title: Syn. Panel for 1 x 2600 KW Generator

Customer: CTCl

Type of control panel: \_\_\_\_\_

Job No.: \_\_\_\_\_

Date: \_\_\_\_\_

*20/10/06*

#### 1. Visual Check

Description	N.A.	Pass	Fail	Remarks
1.1 Front door all component layout as our drawing.		X		
1.2 Front door component, name plate as per component drawing.		X		
1.3 Security of all base plate and relay component.		X		
1.4 Base plate arrangement as our drawing.		X		
1.5 Check all bus bar layout, clearance and security support.		X		
1.6 Painting finished.		X		
1.7 Painting colour as per drawing.			X	To re-spary as per required
1.8 Panel dimension as per drawing.		X		
1.9 All component device no. properly labelled and placed.		X		
1.10 All bus bar and main cable to be marked with proper colour and code sign.	X			No Bus Bar Fitted
1.11 All live part to be covered.		X		

#### 2. Insulation Test (Bus Bar)

Description	Result	N.A.	Pass	Fail	Remarks
2.1 Red phase to ground.	100 M		X		To be > 2M
2.2 Yellow phase to ground.	100 M		X		To be > 2M
2.3 Blue phase to ground.	100 M		X		To be > 2M
2.4 Neutral phase to ground.	100 M		X		To be > 2M