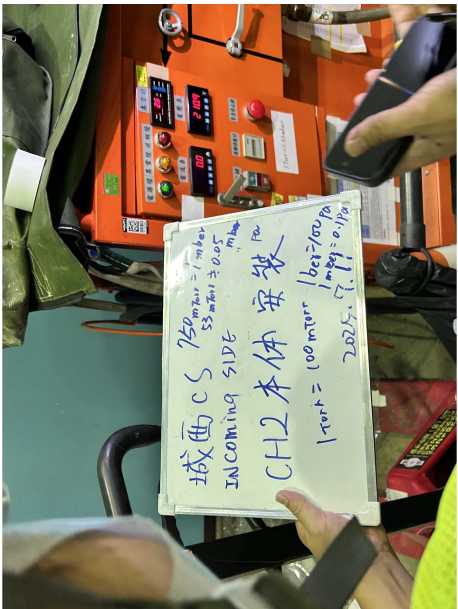
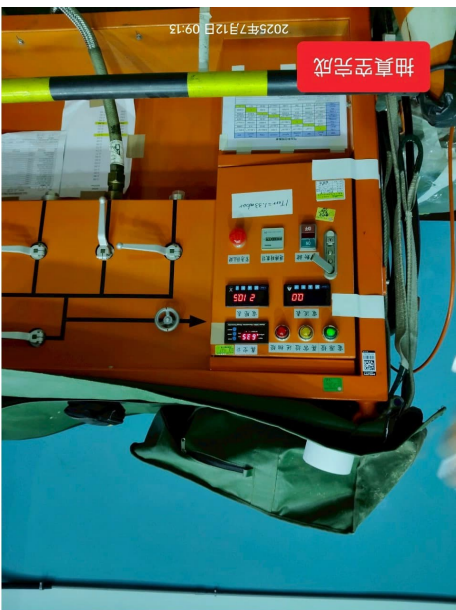






Power Cable Interface Service Report



PREPARED		STATUS		SECURITY LEVEL	
2025-04-23 Wei Liang Tang		Approved		Internal	
APPROVED		DOCUMENT KIND			
2025-04-23 Fairiz		Report			
TITLE					
Power Cable Interface Service Report					
OWNING ORGANIZATION		DOCUMENT ID		REV.	LANG.
		HTDFE-24-0345-SDO		B	en
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Power Cable Interface Service Report

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1 Technical Data

Customer	Consortium of HDEC Corporation and FUTAI Engineering Co. Ltd		
Plant / Substation name	69kV GIS Tainan Chengxi Incinerator, Taiwan		
Product	72kV GIS		
Maker	HITACHI		
Type of GIS	FAC 69-SC12-31		
Bay number	GG01		
CB / DS number	513558-1 (CB) / 508684-1 (DS1)		
Feeder Name	Incoming		
Type of CB	CFPT-60-31		
Serial No.	508684-1	Year	1996
Rated voltage	72kV	Rated current	1200A
Date of cable interface work start	2025/08/30	Date of cable interface work complete	2025/08/31

2 Work activity

- a) Completed power cable interface work as per approved method statement. (Doc id:_HTDFE-24-0347-MPR)
- b) Completed SF6 gas quality check on CHd of Feeder

**Our Engineer/Staff performed the above work activity,
and the result of SF6 Gas Quality report are attached.**

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3 SF₆ Gas Quality Test

Item to be checked			Result			Criteria
Check the SF ₆ gas quality			Contents of Contaminated Gas (ppmv)			
a) Contamination gas			R / 3in1	Y	B	
Date: 2025/08/30	Cable Box (before work)		0			Less than 1 ppmv
Date: 2025/09/31	Cable Box (Final)		0			
b) SF6 Gas quality						Criteria
Temp: 30 °C RH: 67 %	Cable Box (before work)	Gas press. (kgf/cm ²)	6.49			-
		Purity (%)	99.7			More that 97%
		Dew point (°C)	-17.6			-
		Moisture con- tents (ppmv)	205.1			Less than 500ppmv
Temp: 28 °C RH: 70 %	Cable Box (Final)	Gas press. (kgf/cm ²)	6.08			-
		Purity (%)	100			More that 97%
		Dew point (°C)	-25.0			-
		Moisture con- tents (ppmv)	100.5			Less than 500ppmv
c) Gas Leakage test						
Date: 2025/08/31	Cable Box (Final)		No leak			No gas leak

Note: RH : Humidity

a) SF₆ Purity Tester / 3in1: 973-SF6-CO9 S/N : 21-0129 (RH Systems SF6 Analyzer 937)

b) SF₆ Dew Point Tester: 973-SF6-CO9 S/N : 21-0129 (RH Systems SF6 Analyzer 937)

c) SF₆ Leak Detector : SF6-IR-Leak S/N : 110KEC2Y (WIKA)

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4 Contact Resistant Measurement

Resistance of the main circuit was measured by voltage drop method by conducting 100A DC current. (Before disconnection and after HV testing)

Injection point	Measured point	Contact Resistance (μΩ)								
		Measurement before disconnecting Temperature: 28°C / 76% Date: 2025/07/08			Measurement after reassembling Temperature: 29°C / 67% Date: 2025/08/30					
		R	Y	B	R	Y	B	R	Y	B
①-②	① - ②	22.1 (21.43)	20.7 (20.07)	20.3 (19.68)	21.0 (20.28)	21.2 (20.48)	21.8 (21.06)	-	-	-
Injection point	Measured point	Design Value at 20°C [μΩ]			Measured Value at (Rt) [μΩ]			Converted Value at 20°C (R20) [μΩ]		
		R	Y	B	R	Y	B	R	Y	B
③-④	③-④	1.55	1.55	1.55	2.7	2.9	2.9	2.61	2.80	2.80

- Remark: 1) Please see Fig. 1 for measurement point.
- 2)Converted value: $R(20) = (234.5+20)/(234.5+temperature)*Rt$
- 3) Criteria: ±20% of measurements before disconnecting contact resistance value
±4 μΩ of design value

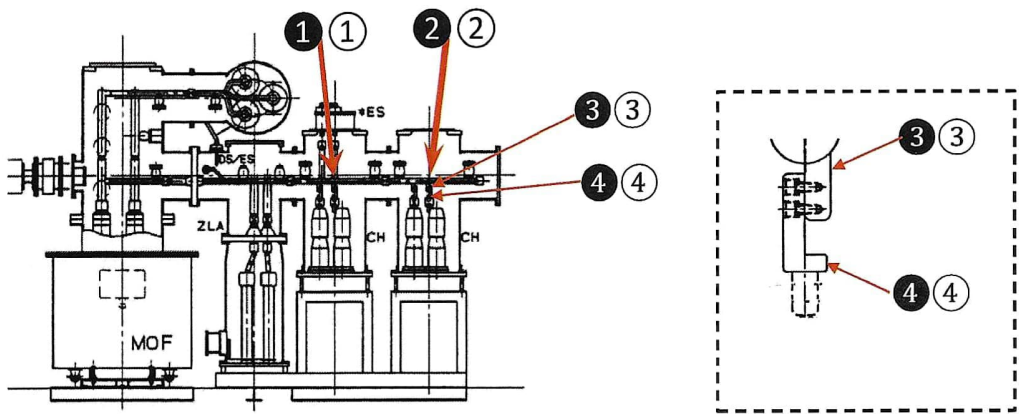


Fig.1 Contact resistance measurement point

5 Issue found and recommendation

1. Found differential of SF6 gas pressure reading at SF6 Gas Monitoring Systems compare with analog
Gauge and temperature meter (SF6 pressure reading and temperature reading).
Pressure gauge shown 0.55 MPa (5.5 bar / 6.5 bar abs.) and 9.5 bar at Monitoring Systems.
Temperature shows 62 °C at Monitoring Systems, and 28 °C at temperature meter.
Recommended to change temperature sensor, pressure sensor and Monitoring Systems for accurate reading.



Revisions

Rev.	Page (P) Chapt. (C)	Description	Date Dept./Init.
A	All	First issued	13/11/2024 / PGHV-Sin
B	All	Update company logo	23/04/2025/ PGHV-Sin