



Item	Description	Yes	No	NA	Remarks
<b>1.0 Builder Works</b>					
1.1	Door with secured key lock is provided				
1.2	Anti-flooding kerb min. 150mm height is provided for substation located at basement or located near an inclined road, slope or sea front				
1.3	Floor level at least 150mm higher than outside pavement if substation is located at ground level				
1.4	Level access with sufficient space for equipment delivery is provided				
1.5	Emergency exit route is provided				
1.6	Walls and ceiling are cement and sand plaster with suitable paint				
1.7	Floor is oil resistant, non-slip finished				
1.8	Min. 1000 mm clearance at both ends of each heat exchanger				
1.9	Adequate loading is allowed at ceiling and walls				
1.10	Pipe trenches are suitably backfilled				
1.11	Min. 1500 mm clearance between each heat exchanger "Wall" and other "Heat Exchanger" are maintained				
1.12	Bedding of compacted sand of thickness not less than 100mm is provided in pipe trenches				
1.13	Pipe trenches with adequate width and alignment are provided				
1.14	Adequate cable ducts and draw pits are provided.				
<b>2.0 Hoisting Facilities and Delivery</b>					
2.1	Hoisting beam / I-bolt is provided for EACH exchanger. Safe working load (S.W.L.) and statutory required certificate is displayed				
2.2	For substation at basement, access and hoisting beam / I-bolt or other means of material delivery is provided for heat exchanger transportation to ground floor				



Item	Description	Yes	No	NA	Remarks
<b>3.0 Ventilation</b>					
3.1	Ventilation or air conditioning system is provided to maintain max. 35oC dry bulb and 0.021 kg/kg dry air				
3.2	Ventilation louvre bottom level is min. 2.5m above floor level. Exhaust air discharge is not directed towards pedestrians				
3.3	Intake louver is installed and equip with air filter				
3.4	Air duct is painted with "White" colour and labelled with air-flow direction				
3.5	Ventilation fan is operated by temperature sensing device and by local manual and on / off timer				
3.6	Outside air louvers are provided to screen out rodents, birds and pests. Louvers are weather proof type				
3.7	Intake air louver is not positioned near any sources of air pollution or other exhaust				
<b>4.0 Plumbing and Drainage</b>					
4.1	Cleaning trough and a 32mm dia. water inlet is provided and tested				
4.2	Floor is laid to fall of minimum fall of 1:100 to nearest drain point				
4.3	Min. ø 100 mm floor drain point and associated dome grating cover is provided				
4.4	Min. ø 150 mm surface channel with grating and minimum 2 Nos. ø 100 drain outlets with dome grating surrounding each heat exchanger plinth is provided				
4.5	Flooding alarm system with sensor, control panel and flashing light is provided. Repeated signal is provided for DCS connection				
<b>5.0 Fire Service</b>					
5.1	Fire extinguisher(s) is provided				
5.2	Heat/smoke detectors are provided and all temporary protective plastic covers are removed				



Item	Description	Yes	No	NA	Remarks
5.3	Building fire alarm is audible within the substation				
<b>6.0 Lighting</b>					
6.1	Lux level on floor level is not less than 200 lux				
6.2	Twin batten 1.2m long T5 florescent tubes with IP54 are provided. Adjacent lighting fittings are fed from different circuit				
6.3	2 hrs battery operated lighting and exit sign are provided for emergency				
6.4	Emergency lighting at least 2 lux on floor level are provided				
<b>7.0 Power Supply, Electricity and Control System</b>					
7.1	A 32A SPN power supply with backup power supply is located near the main access door				
7.2	Wiring diagram of MCB board is posted in MCB board				
7.3	Signal cables is protected by separate metal trunking or conduit				
7.4	Sufficient number of 13A single phase socket outlets are provided and be tested				
7.5	All electrical equipment are constructed to a minimum of IP54 protection				
7.6	A power supply for EMSD DCS's device and control instrument is provided near DCS PLC panel				
7.7	Earthing terminal connecting points and equipotential earth bonding for all metallic parts are provided (including metal door)				
7.8	Junction box with a pair of dry contacts for common signal of the approved consumer's chilled water pumps ON/OFF signal				
7.9	Labels for lighting switch; socket outlet; power cables; earth bonding and MCB Board are provided				



Checklist for Substation of District Cooling System

Document Revision: Rev. 1/2022

Page: 4 of 5

Substation No.:



Service Address:

Date & Time

of Inspection:

- For EMSD's Installation  
 For Handover to EMSD for O&M

Item	Description	Yes	No	NA	Remarks
<b>8.0 Telecom Facilities</b>					
8.1	A fixed telephone line and socket is provided				
8.2	Mobile phone signal coverage is provided				
<b>9.0 General</b>					
9.1	Metal nameplate for substation is provided at the main entrance door				
9.2	Sufficient space for maintenance is provided				
9.3	All debris, floor water and temporary protective covers are removed				
9.4	No other foreign installations (sewage, storage, overhead piping, etc.) is situated in the substation				
9.5	All conduit junction boxes are properly covered and labelled				
9.6	Only DCS equipment, building services serving only the substation and air conditioning installation in relation to DCServ to the building are installed in the substation				
<b>10.0 Temporary Facilities and Building Services during Installation</b>					
10.1	Temporary power of one no. 60A TPN and one no. 20A SPN				
10.2	Temporary water supply and dewatering pumps, pipes and associated controls				
10.3	Fire Services provisions for construction site				
10.4	Security for the substation				
10.5	Storage area for DCServ pipe, equipment and tools				
10.6	Refuse collection point at a location close to the substation				
<b>11.0 Others as requested by EMSD</b>					
11.1					

 	<b>Checklist for Substation of District Cooling System</b>		
	Document Revision:	Rev. 1/2022	Page: 5 of 5
	Substation No.:		<input type="checkbox"/> For EMSD's Installation <input type="checkbox"/> For Handover to EMSD for O&M
	Service Address:		
Date & Time of Inspection:			

**Part A: (To be completed by the Site Agent of the Building)**

Declaration by the Site Agent of the Building	
<p>I, as the Site Agent of the Building, hereby confirmed that the provisions of the substation have been checked in order and in accordance with the approved General Building Plan, Technical Guidelines for Connection to DCS and the District Cooling Services Supply Conditions.</p> <p>Signature of Site Agent: _____</p> <p>Full name of Site Agent: _____</p> <p>RPE Registration No of Site Agent, if any: _____</p> <p>Company: _____</p> <p>Tel. No.: _____ Fax No.: _____</p> <p>Email: _____</p> <p>Corresponding address: _____</p> <p>Date: _____</p>	<p>Company Chop:</p>

**Part B: (To be completed by EMSD )**

Substation Ready For EMSD's Installation / Handover to EMSD for O&M
<input type="checkbox"/> Accepted <input type="checkbox"/> Accepted subject to comments <input type="checkbox"/> Incomplete / Unaccepted Remarks: _____

	Name	Company / Department	Post	Signature / Date
Checked by: (EMSD's Representatives, i.e. Resident Site Staff /Operator etc)				
Witnessed by:				