Classification: Public

LUSAIL DEVELOPMENT

District Cooling Tagging and Identification System for Plants, Network and ETS

Document No.: LUS-CP13B-MAQ-REP-UT-001

REV NO.	DATE ISSUED	REASON FOR ISSUE	CHANGES	PREPARED BY	CHECKED BY	APPROVED BY
0	29/09/2013	IFR		Pramod Prabhakar/ Muhammad Ali	Abdullah Abushaikha	D. Reed Phillips
1	19/07/2026	IFR	Updated	Ahmed Hasanin	Abdul Azeez / Raed Elzarad	Mohammed A Razzaq Haidar

REASON FOR ISSUE:	**STATUS**
IFR Issued for Review/Comment(s)	**PFC** Preliminary for Comment
IFI Issued for Information	**SS** Superseded
IFA Issued for Approval	**A** Approved

Classification: Public

Table of Contents

Classification: Public

1 INTRODUCTION

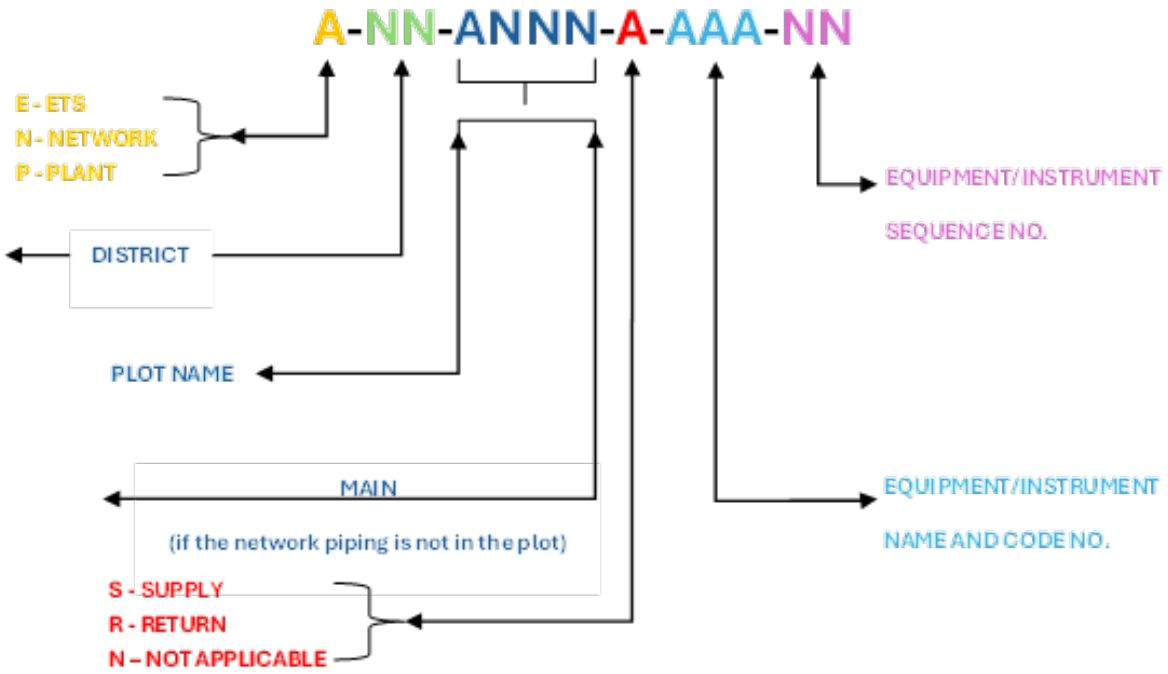
1.1 General

This document defines the requirements to furnish tagging and identification system for District Cooling Plant, Network and Energy Transfer Stations (ETS). Following are general guidelines:

1. Tagging and identification system shall follow B.S. 1710:1984 (or latest) standard: Specification for identification of pipelines and services.
2. All tagging and identification of equipment and valves shall be made according to the P&ID.
3. Tag plate shall be made up of brass/ SS with bevelled edges and black engraved letter on white background. Letter height shall be visible or as per the B. S standard.
4. Valve name plate can be fixed in a convenient way near to the valve (using normally riveted chain). Tag plate shall be both for supply and return valves, flow direction shall be provided with stickers or paint as per the BS standard. Flow direction identification shall be selected as per prevalent environment where flow directions identifications are applied.
5. Control panel and starters shall be provided with name plate tagging.
6. Equipment tagging can be fixed with two rust resisting rivets or self-taping screws and shall be fixed directly on the equipment.

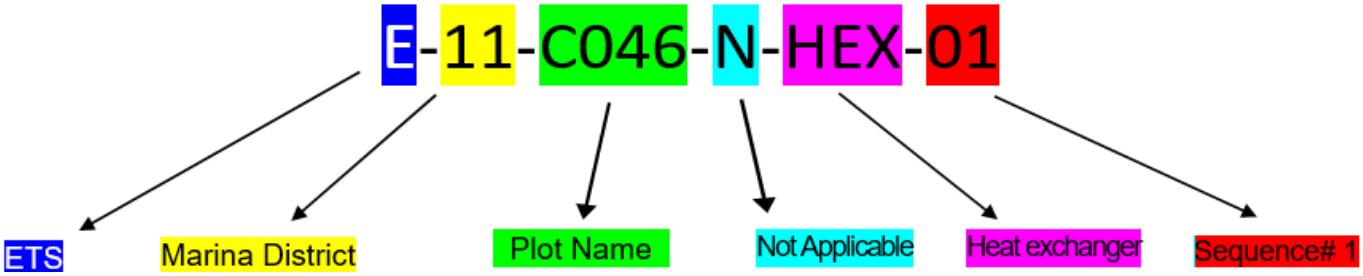
1.2 Tagging System for District Cooling Network and ETS Rooms

District #	District Name
01	El Arkyah
02	Al Kharaej Towers
03	Boulevard Commercial
04	Energy City Qatar-1
05	Yasmeen city
06	Entertainment Island
07	Fox hills (North & South)
08	Golf District (East &
09	Lusail Civic Facilities
10	Lusail Towers
11	Marina
12	Medical-Education
13	Public Amenities
14	Qatar Entertainment
15	Qetaifan North
16	Qetaifan South
17	Seef Lusail
18	Waterfront Residential
19	LRT Stations
20	Cresent Park North
21	Stadium District



Equipment/Instrument Abbreviation		
SL	Description	Code
01	Chiller	CH
02	Pump	P
03	Cooling tower	CT
04	Cooling tower basin	CTB
05	Vibration switch	VS
06	Low oil switch	LOS
07	Thermal energy storage tank	TES
08	Expansion tank	ET
09	Rupture switch	RS
10	Storage tank	ST
11	Heat exchanger	HEX
12	Fibre optic cable	FOC
13	Butterfly valve	BFV
14	Ball valve	BLV
15	Block and bleed valve	BBV
16	Motorized on/off Valve	MOV
17	Modulating Valve	MDV
18	Temperature control valve	TV
19	Pressure independent control valve	PCV
20	Non return valve	NRV
21	Pressure safety valve	PSV
22	Pressure relief valve	PRV
23	Pressure indicator	PI
24	Pressure indicating transmitter	PIT
25	Differential pressure transmitter	DPT
26	Pressure switch	PS
27	Differential pressure switch	DPS
28	Temperature indicator	TI
29	Temperature transmitter	TT
30	Temperature element	TE
31	Flow switch	FS
32	Flow indicating transmitter	FIT
33	Flow meter	FM
34	Flow totalizer	FT
35	Level switch	LS
36	Level switch low	LSL
37	Level transmitter	LT
38	BTU Meter	BTU
39	Emergency stop	ES
40	Process control panel	PCP
41	pH element	pH
42	Conductivity element	CE
43	ORP element	ORP
44	Pipe	PIP

EXAMPLE:



NOTE:

a) Counting sequence is considered from the point chilled water enter the Network/ETS.

b) Additional list of equipment's/instruments can be added to the existing list.

1.3 Tagging System for District Cooling Plants

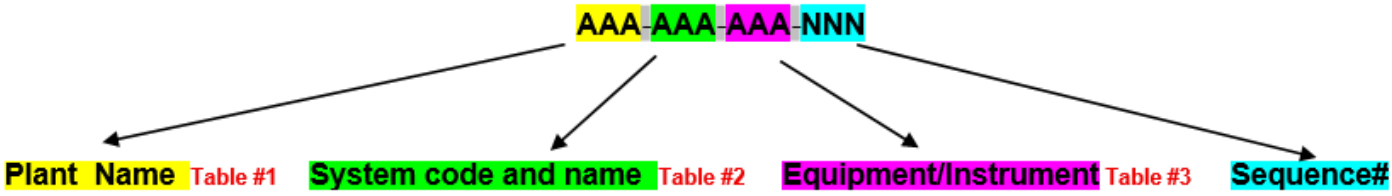


Table #1

PLANT	PLANT NAME
MRN	DCP MARINA
WAD	DCP WADI
NTH	DCP NORTH
WST	DCP WEST

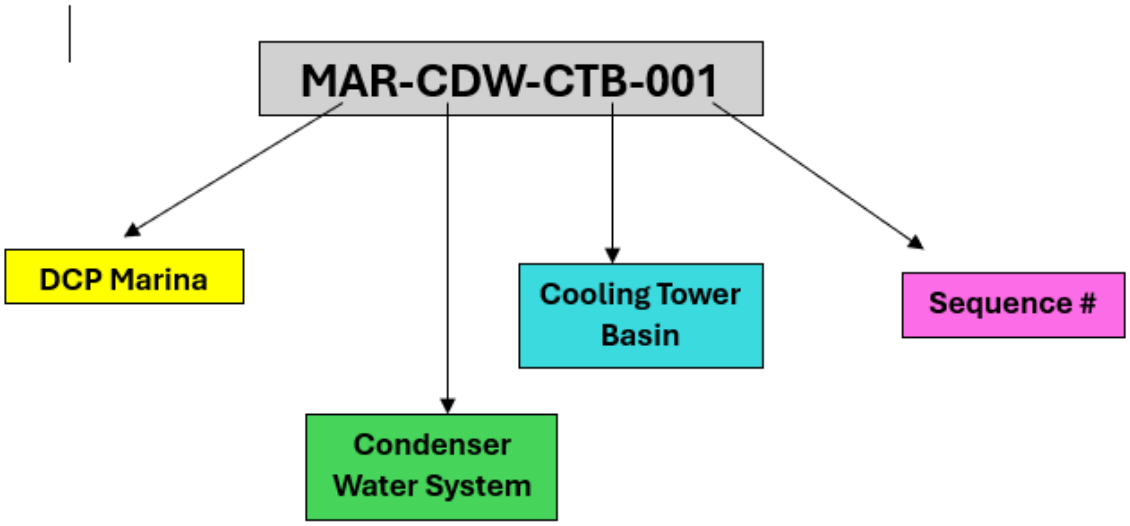
Table #2

System Code and Name		
SL. No.	**Description**	**Code**
1.	MV Soft Starter (11KV)	MV SS
2.	LV Soft Stater (415V)	LV SS
3.	MV Variable Frequency Drive (11KV/3.3KV)	MV VFD
4.	LV Variable Frequency Drive (415V/230V)	LV VFD
5.	HV Switch Gear (11KV/3.3KV)	HV SWGR
6.	MV Transformer (11/.33KV)	MV TR
7.	LV Transformer (11/0.433KV)	LV TR
8.	LV Capacitor Bank Panel	PFCC
9.	Auto Transfer Switch	ATS
10.	Battery Charger	DC CHR
11.	Uninterruptible Power Supply	UPS
12.	Central Battery System	CBS
13.	Emergency Main Distribution Board	EMDB
14.	Sub Main Distribution Board	SMDB
15.	Distribution Board	DB
16.	Lighting Control Panel	LCP
17.	Façade Lights	FACL
18.	Motor Control Centre	MCC
19.	Grounding System	GRS
20.	Automatic Tube Cleaning System	ATCS
21.	Basin Sweeper System	BSS
22.	Distribution System - Supply / Return	DS
23.	Booster Pump System	BPS
24.	Side Stream Filtration Unit	SSF
25.	Blowdown System	BDS
26.	Domestic Water System	DWS
27.	Irrigation Water System	IWS
28.	Agitation System	AGS
29.	Air Compressor System - Centralized	AIR
30.	Sump Pump System	SPS
31.	Building Management System	BMS
32.	HVAC System	HVAC
33.	Plant Control System	PCS
34.	Leak Detection System	LDS
35.	Ultra Filtration System	UF
36.	Reverse Osmosis System	RO
37.	Self-Cleaning Filtration	SCF
38.	Access Control System	ACS
39.	Shutter Door System	SDS

Table #3

Equipment / Instrument Abbreviation		
1.	Vacuum Circuit Breaker	VCB
2.	Air Circuit Breaker	ACB
3.	Multi-Function Relay	MFR
4.	Multi-Function Metering	MFM
5.	Reduced Voltage Soft Starter	RVSS
6.	Motorized Manual Transfer Switch	MTS
7.	Earth Leakage Relay	ELR
8.	DOL Starter	DOL
9.	Bus Duct	BD
10.	Service Lift	LFT
11.	Neutral Grounding Resistor	NGR
12.	Chlorine analyser	ChA
13.	Pressure Independent Control Valve	PICV
14.	Weather Station - Humidity Sensor	RH
15.	Weather Station - Wet bulb Sensor	WB
16.	Turbidity Analyzer	TrA
17.	Solenoid Valve	SOV
18.	Direct Digital Controller - BMS	DDC
19.	Ambient Temperature Sensor/Transmitter	ATT
20.	Air Handling Unit	AHU
21.	Fresh Air Handling Unit	FAHU
22.	Vertical Air Handling Unit	VAHU
23.	Fan Coil Unit	FCU
24.	Package AC Unit	PACU
25.	DX Split AC Unit	DXU
26.	Air Conditioning Unit	ACU
27.	Extract / Exhaust Fan	EXF
28.	Fresh Air Fan	FAF
29.	Supply Fan	SF
30.	RO Air Compressor	ROAC
31.	UF Air Compressor	UFAC
32.	RO Air Blower	ROAB
33.	RO Feed Cartridge Filter	ROCF
34.	RO CIP Cartridge Filter	RCCF
35.	Ultra Filtration Train (Skid)	UFT
36.	Reverse Osmosis Train (Skid)	ROT
37.	Roller Shutter	RS
38.	UF Break Water Tank	UFBWT
39.	RO CIP Water Tank	ROCWT
40.	RC/MC Tank	RCWT
41.	Filtered Water Break Tank	FWBT
42.	Programmable Logic Controller	PLC
43.	Human Machine Interface	MHI
44.	Input / Output Modules	IO
45.	Communication Modules	CM
46.	Profibus PA Junction	PA JN
47.	Servers	SER
48.	Operator Workstation	OWS
49.	Engineering Workstation	EWS

Example:


MAR-CDW-CTB-001
DCP Marina
Condenser Water System
Cooling Tower Basin
Sequence #