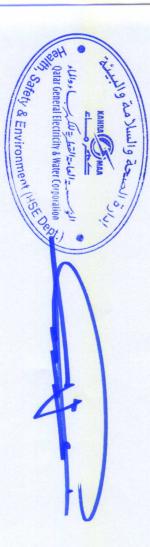
Loss Prevention Protection as per QCDD Requirements.		
SUBSTATIONS – Electricity Distribution Networks	Contraction of the Contraction o	
Page 1 of 7	Distribution Network Substations  Date: 07.04.2016	Loss Prevention System

Serial No	Type of Substation	Equipment's	Type of structure / Civil Work	Loss Prevention Requirements
-	I - Public Dist	- Public Distribution Substation		***************************************
1:1		H	Substation Building is	1- MV Panel Room 2No's of FE ( Clean Agent,
	Indoor	for future use) + F.P. Area, it might be	Area, it might be far	2- 2- Transformer Room 2No's of FE ( Monix Dry
	Distribution		away or attached with	Powder, 10 LBS)
	OUDSIGNOIS		Neighbours subject to	3- Exit & Safety Signs in Arabic + English Both
			site condition	Formats
				4- Fire Rated Doors 3hr.
				5- All penetrations will be sealed by Fire resistance
				material
				6- Mechanical Sleeves ( Fire Rated, Gas sealed or
				Water Proof ) to be provided at all cable entries
				and control of the co
				applicable the alea where capies are chicking in
				substation by sand backfill & underground
				excavated.





Protection as per QCDD Requirements.		
SUBSTATIONS – Electricity Distribution Networks	Contraction of the Contraction o	
Page 2 of 7	Distribution Network Substations  Date: 07.04.2016	Loss Prevention System

Serial No	Type of Substation Outdoor
	Outdoor Distribution Substations
	Package Substations





Protection as per QCDD Requirements.	•	
SUBSTATIONS – Electricity Distribution Networks	Control of the Contro	
Page 3 of 7	Distribution Network Substations  Date: 07.04.2016	Loss Prevention System

		1 1 1 4	Serial No
	Stations (G.M.T)	Switching Stations	Type of Substation
Safety & Environment HSK	Type for future use) + F.P  Type for future use) + F.P  KAHRA  KAHRA  KAHRA  Report For July  KAHRA  KAHRA	Indoor Switchgears (V.C.B - O.C.B) or Outdoor Switchgears (R.M.U (Oil or SF6))	Equipment's
	Located in Open Area , it might be far away or attached with neighbours subject to site condition	Substation Building is Located in Open Area, it might be far away or attached with neighbours subject to site condition	Type of structure / Civil Work
الإدارة المامة للدهاع المدني	1- MV Panel Room INO'S OFFE (Clean Agent, 10LBS) 2- 2- Transformer Room 1No's of FE (Monix Dry Powder, 10 LBS) 3- Exit & Safety Signs in Arabic + English Both Formats 4- Fire Rated Doors 3hr. 5- All penetrations will be sealed by Fire resistance material 6- Mechanical Sleeves (Fire Rated, Gas sealed & Water Proof) to be provided at all cable entries and exits of wall. Note this point 6 is not applicable the area where cables are entering in substation by sand backfill & underground excavated.	N/A	Loss Prevention Requirements
			Remarks

الإدارة العامة للدفاع المدني إدارة الوقاية قسم المضفطات الهندسية

Loss Prevention Protection as per QCDD Requirements.		
SUBSTATIONS – Electricity Distribution Networks	The second secon	
Page 4 of 7	Distribution Network Substations  Date: 07.04.2016	Loss Prevention System

мп= =	Serial No	Type of Substation	Equipment's	Type of structure / Civil Work	Loss Prevention Requirements	Remarks
II - Consumer Distribution   Substations		Remote Stations (P.M.T)	Pole Mounted Tx. (Oil Type) 200 KVa	No Civil Building ( Only pole foundations)	N/A	
U.C.B O.C.B + Tx. (Oil Type - Dry Indoor Type) + F.P + M.V Panel Distribution  Substations  Substations  1	2.	II - Consumer	Distribution Substations			
cable entries and exits of wall.	.2	Indoor Distribution Substations	Type) + F.P + M.V Panel  Type) + F.P + M.V Panel  RAHRAL  RAHR	Substation Building can be Located outside consumer building or inside it (Ground Floor or Basement), subject to the project type	A/G & U/G both MV Panel Room will be protected by FM200 System + 1No's FE (Clean Agent, 10LBS).  A/G Transformer Room 2No's of FE (Monix Dry Powder, 10 LBS).  U/G Transformer will be protected by FM200 System + 1No's FE (Monix Dry Powder, 10 LBS).  Exit & Safety Signs in Arabic + English Both Formats.  Fire Rated Doors 3hr.  All penetrations will be sealed by Fire resistance material  Mechanical Sleeves (Fire Rated, Games All Sleeves)	A COLUMN TO THE PARTY OF THE PA

Loss Prevention Protection as per QCDD Requirements.		
SUBSTATIONS – Electricity Distribution Networks	The same same state of the sam	
Page 5 of 7	Distribution Network Substations  Date: 07.04.2016	Loss Prevention System

SUBST	2.3	2.2	Serial No
ATIONS - Elec	Package Substations	Outdoor Distribution Substations	Type of Substation
SUBSTATIONS—Electricity Distribution Networks (Public & Consumers )	R.M.U (Oil or SF6) + Tx. (Oil Type) + F.S.F.P	Outdoor Switchgears ( R.M.U (Oil or SF6) - F. Swt Tx. Swt.) + Tx. (Oil Type - Dry Type) + F.P + M.V Panel	Equipment's
nsumers)	Substation (Steel Enclosure Only) to be Located outside consumer building, sometimes inside building (Ground Floor) in very limited cases where suitable height should be available (5~6)m	Substation Building can be Located outside consumer building or inside it (Ground Floor), subject to the project type	Type of structure / Civil Work
( E	NIA  NIA  ROBERTA GIANA  ROBERTA GIA	<ol> <li>A/G &amp; U/G both MV Panel Room will be protected by FM200 System + 1No's FE (Clean Agent, 10LBS).</li> <li>A/G Transformer Room 2No's of FE (Monix Dry Powder, 10 LBS) + Fire Alarm System.</li> <li>U/G Transformer will be protected by FM200 System + 1No's FE (Monix Dry Powder, 10 LBS).</li> <li>Exit &amp; Safety Signs in Arabic + English Both Formats</li> <li>Fire Rated Doors 3hr.</li> <li>All penetrations will be sealed by Fire resistance material</li> <li>Mechanical Sleeves (Fire Rated, Gas sealed &amp; Water Proof) to be provided at all cable entries and exits of wall.</li> </ol>	Loss Prevention Requirements
	The Cale of the State of the St		Remarks

Protection as per QCDD Requirements.		
SUBSTATIONS – Electricity Distribution Networks	The same of the sa	
Page 6 of 7	Distribution Network substations  Date: 07.04.2016	Loss Prevention System

2.6	22 23 44	Serial No
Remote Stations (P.M.T)	Switching Stations Remote Stations (G.M.T)	Type of Substation
Pole Mounted Tx. (Oil Type) 200 Kva	Ground Mounted Tx. (Oil Type - Dry Type) + F.P + M.V Panel  Washing Safety & Environment Instruction  Representation of the state of th	Equipment's
No Civil Building ( On Pole Only )	Substation Building can be Located outside consumer building or inside it (Ground Floor), subject to the project type Substation Building can be Located outside consumer building or inside it (Ground Floor or Basement or High Floor), subject to the project type	Type of structure / Civil Work
NA	N/A  1- A/G Transformer Room 2No's of FE ( Monix Dry Powder, 10 LBS) + Fire Alarm System. 2- U/G Transformer will be protected by FM200 System + 1No's FE ( Monix Dry Powder, 10 LBS). 3- Exit & Safety Signs in Arabic + English Both Formats 4- Fire Rated Doors 3hr. 5- All penetrations will be sealed by Fire resistance material 6- Mechanical Sleeves ( Fire Rated, Gas sealed & Water Proof ) to be provided at all cable entries and exits of wall.	Loss Prevention Requirements
A STATE OF THE PARTY OF THE PAR	A LAND CONTRACTOR OF THE PARTY	Remarks

## Note:

- 1- TXs Capacity can be ( 500-800-1000-1250-1600) KVa.
  2- DRY TYPE TRANSFPORMERS: Inside , Basement & Beside Main Building and in Compounds , close to public and populated areas Dry Type Transformers to be installed.

Loss Prevention Protection as per QCDD Requirements.		
SUBSTATIONS – Electricity Distribution Networks	The state of the s	
Page 7 of 7	Distribution Network Substations  Date: 07.04.2016	Loss Prevention System

- In consumer substation if Transformer is not part of main building & it's 15meter away from main building then only 2No's of FE (Monix Dry Powder, 10 LBS) and safety signs will be provided, For example Schools etc.
- 3hr Fire Rate Doors will be installed in b/w two partitions according to KM HSE specs & QCDD requirements
- Fire Rated Doors will be provided in FM200 protected rooms according to KM HSE specs & QCDD requirements
- Fire curtains will be provided in FM200 protected rooms and these curtains will be interlocked with FM200 system
- 7- Substation walls should be 3hr fire rated.
- φφ Further Details consultant/contractor shall coordinate with KAHRAMAA HSE and Layout of substation shall be sealed stamp by KAHRAMAA HSE before Qatar Civil Defence approval.
- Abbreviations: Substations Design specification of Fire Fighting and Fire Alarm Detection system shall be compliance to Qatar Civil Defence, KAHRAMAA HSE Deptt and NFPA.

Medium Voltage	MV
Bolt On Feeder Pillar	BOFP
Free Standing Feeder Pillar	FSFP
Feeder Pillar	FP
Transformer	XL
Transformer Switch	TX .Swt.
Feeder Switch	F.Swt.
Ring Main Unit	RMU
Oil Circuit Breaker	O.C.B
Vacuum Circuit Breaker	V.C.B
Not applicable	N/A
Between	BW
Under Ground	U/G
Above Ground	A/G

