# FORMAT FOR ELETRICITY SAFTY AUDIT REPORT FOR PREMISES HAVING ONE FLOOR & OFFICE

BRANCH CODE & NAME	
ADDRESS	
SANCTIONED LOAD	
CONNECTED LOAD	
MONTHLY ELECTRICITY BILL (APPROX.)	
TOTAL TONNAGE OF AIR CONDITIONER LOAD	
AREA OF THE BRANCH	

## **ELECTRICAL SAFETY:**

S.NO.	DESCRIPTION	DETAILS	REMARKS (IF ANY)
1.	WHETHER TPN ISOLATORS / MCCBs / ELCBs / ARE PROVIDED TO CATER THE LOAD	YES / NO	
2.	WHETHER LIGHTS AND EMERGENCY LIGHTS ARE PROVIDED IN ELECTRICAL ROOM / OPERATING AREAS FOR EASY OPERATION & MAINTENANCE WORKS	YES / NO	
3.	WHETHER PUMP ROOM, DG SET ROOM, UPS ROOM, AC PLANT ROOM, ELECTRICAL PANEL ROOM ARE MAINTAINED IN DRY AND IN GOOD CONDITION AND OBSOLETE / HAZARDOUS / OLD ITEMS ARE NOT DUMPED THERE.	YES / NO	
4.	WHETHER WATER SEEPAGE IS OBSERVED NEAR ANY OF THE ELECTRICAL PANEL, DISTRIBUTION BOARD, ELECTRICAL EQIPMENT, ETC	YES / NO	
5.	WHETHER EARTHING PITS ARE PROVIDED AND CONNECTED TO EQUIPMENT AND THE BODY OF EQUIPMENT	YES / NO	
6.	WHETHER EARTHING PITS ARE MAINTAINED PROPERLY	YES / NO	
7.	WHETHER EXHAUST FANS FOR VENTILATION OF PANEL ROOM / ELECTRICAL ROOM / UPS ROOM / DG SET ROOM IS PROVIDED AND NO PAPER, OLD MATERIAL OR ANY OTHER SCRAP IS KEPT NEAR DB / PANELS / UPS / BATTERIES ETC.	YES / NO	
8.	WHETHER PENALTY IS BEING IMPOSED IN ELECTRICITY BILL ON ACCOUND OF HIGHER LOAD / POOR POWER FACTOR / POOR LOAD FACTOR ETC (ACERTAINED FROM THE ELECRICITY BILLS OF APRIL/MAY/JUNE/JULY) ADDITIONAL ELECTRICAL LOAD REQUIRED (IF ANY)	YES / NO	
9.	WHETHER LOAD IS DISTRIBUTED IN ALL THREE PHASES TO AVOID ANY UNBALANCING OF PHASE LOAD AND NO LOOSE ELECTRICAL CONNECTIONS / HAPHAZRAD WIRINGS OBSERVED IN THE BUILDING / OFFICE PREMISES.	YES / NO	
10.	WHETHER ISOLATING SWITCHES ARE PROVIDED FOR THE SWITCHING OFF OF THE THENON ESSENTIAL LOADS PREMISES DURING NIGHT AND MAIN SWITCH TO SWITCH OFF THE POWER SUPPLY TO THE BUILDING / FLOOR IN CASE OF FIRE / EMERGENCY.	YES / NO	

11.	WHETHER PROPER PREVENTIVE MAINTENANCE AFTER OPENING OF THE ELECTRIACL BOARDS AND DISTRIBUTION BOARDS ARE CARRIED OUT BY THE LICENSE HOLDER ELECTRICIAN OR SKILLED TECHNICIANS OF EQUIPMENT MANUFACTURER / SERVICE PROVIDERS.	YES / NO	
12	WHETHER APPROPRIATE TIMERS USED IN THE CHANGEOVER OF AIR CONDITIONERS FOR SERVER ROOM ACs AND FOR SIGNAGE BOARDS TO MAKE AUTO ON / OFF (FOR SCHEDULE TIMINGS). THE THERMOSTAT OF THE ACs AT SERVER ROOM SHOULD BE SET TO SAY 26 C, SO THAT IT WILL RUN ONLY WHEN THE TEMPRATURE IS TOO HIGH (TO MINIMIZE CHANCES OF FIRE DUE TO IDLE RUNNING OF THE ACS DURING NIGHT)	YES / NO	
13	WHETHER PREVENTIVE MAINTENANCE OF THE ELECTRIC INSTALLTION AND EQUIPMENT IS CARRIED OUT BY SKILLED LICENSE HOLDER ELECTRICIANS / SKILLED TECHNICIANS	YES / NO	
14	GENERAL CONDITION OF ELECTRICAL CONTROL PANELS, MAIN SWITCH, ELECTRIC METER BOARD, CHANGE OVER SWITCH, AC, WATER COOLERS, WATER FILTERS, WIRING CABLES ETC ARE IN GOOD CONDITIONS AND DBs, PANELS, SWITCH BOARDS ARE PROPERLY COVERED	YES / NO	
15	WHETHER ELECTRICAL EQUIPMENTS OF PANTRY ETC ARE PROPERLY CONNECTED TO INDUSTRIAL SOCKET BOX WITH MCBs.  MCBs OR LATEST TYPE SWITCHES ARE PROVIDED TO SWTICH ON / OFF THE ACs TO PROTECT THEM FROM OVERLOAD.	YES / NO	
16	WHETHER THE CONTACT NUMBER OF PERSONS, ELETRICIANS, POWER DISTRIBUTION COMPANY. GENERTOR SERVICE PROVIDER, UPS VENDORS, ACS ETC ARE AVAILABLE WITH SECURITY GAURDS AND OTHER STAFF ARE DISPLAYED IN ELCTRIC / UPS/SERVER ROOM.	YES / NO	
17	WHETHER POWER FACTOR CORRECTION PANEL OF APPROPRIATE RATING IS INSTALLED.	YES / NO	
18	WHETHER ALL THE CONNECTING POINT AT VARIOUS DBs AND PANELS ARE PROPERLY INSULATED AND PROPER INDICATIVE MARKING ARE DONE ARE THE RESPECTIVE PANEL /DB	YES / NO	
19.	WHETHER THE INTERNAL INSULATION OF THE WIRE HAVE BEEN ACCOUNTED FOR CHECKING THE DURABILITY OF ELECTRICAL CONNECTION	YES / NO	

# **FIRE PREVENTIVE MEASURES:**

S.NO.	DESCRIPTION	DETAILS	REMARKS (IF ANY)
1.	ALL OLD DISPOSABLE RECORDS, BROKEN FURNITURE ETC ACCUMULATED IN THE PREMISES HAVE BEEN CLEARED.	YES / NO	
2.	COMBUSTIBLE LEAF LITTER / WASTE PAPERS ETC IN AND AROUND THE BRANCH ARE REMOVED / CLEANED PERIODICALLY	YES / NO	
3.	NO STATIONARY / RECORDS / OLD OBSOLETE ITEMS ARE STORED / KEPT IN THE SERVER / UPS / ELECTRIC ROOM	YES / NO	
4.	STORAGE RACKS IN STATIONARY / RECORD ROOM KEPT AT A SAFE DISTANCE OF AT LEAST 2M FROM ELECTRICAL POINTS / SWITCH / JUNCTION BOXES	YES / NO	
5.	WHETHER IN THE PANTRY / CANTEEN, LPG IS USED	YES / NO	

6.	ARE THE FIRE EXTINGUISHERS AVAILABLE IN THE	YES / NO	
	FOLLOWING WORK AREA AND CLEARLY MARKED AND		
	ACCESSIBLE:		
	1. SERVER / UPS ROOM: CO2 TYPE X 2		
	2. INDIVIDUAL DEPARTMENT OF THE PREMISES: CO2		
	TYPE X 1		
	3. STATIONARY ROOM: CO2 TYPE X 1		
	4. ELECTRIC ROOM / AC PLANT ROOM: CO2 TYPE X 2		
	5. DG SET /GENERATOR : 6kg ABC CAPACITY X 2		

### **SERVER AND UPS ROOM:**

S.NO.	DESCRIPTION	DETAILS	REMARKS (IF ANY)
1.	WHETHER SERVER ROOM HAVE DUAL AC UNITS WITH TIMER CIRCUIT DEVICE ON INDEPENDENT CIRCUITS	YES / NO	
2.	WHETHER EXHAUST FANS ARE INSTALLED IN UPS ROOM	YES / NO	
3.	WHETHER PROPER INSULATION AT THE BATTERIES HAVE BEEN PROVIDED	YES / NO	

The particulars furnished in the application are true to the best of my/our knowledge & belief. I / we understand that if any of the particulars is found incorrect, even at a later stage, my/our contract will be cancelled.

SIGNATURE WITH SEAL OF AUDITOR

DATE: PLACE:

# FORMAT FOR ELETRICAL SAFTY AUDIT FOR PREMISES HAVING MULTIPLE FLOORS / OFFICES

1.	<u>Assessmer</u>	<u>ıt of luminaı</u>	ies / light fittin	<u>igs</u>			
	Type of luminaries / light fittings	No of luminaries / light fittings	Lux level of luminaries / light fittings	aries / consumption		Remarks (Condition of light fixtures acceptable or Not	Suggestions for improvement, if any
				Watt	Amp		

2. Floor wise assessment of Air conditioning system Total electrical load Remarks (Condition Type of Air No of Air Capacity of Condition of air Suggestions on conditioning conditioners Air consumption conditioning of machine improvement, if acceptable or Not units conditioner system any (TR) Watt Amp

# 3.Floor wise assessment of UPS

No. of UPS	Capacity (KVA)	0	Vol f ead UPS			N Volta ich Uf		1	Phase current		To elect loa consur	rical ad	Neutral Earthing & its adequacy	Protective earthing & its adequacy	Remarks (Condition of machine acceptable or Not	Suggestions on improvement, if any
		R	Υ	В	R	Y	В	R	Y	В	KW	Α				

#### 4. Floor wise assessment of electric circuit

SI.No	Heads	Result	Remarks	Suggestions on
			(acceptable or Not)	improvement, if any
1	Presence of Main switch interlocking if two different supplies are coming to Distribution panel			
2	Availability of correct identification of circuit details and protective devices			
3	Presence of non standard (mixed) cable colour warning notice at or near consumer unit / Distribution board			
4	Cables correctly supported throughout their run or not			
5	Condition of insulation of live parts			
6	Adequacy of wiring for current carrying capacity with regard to the type and nature of the installation			
7	Adequacy of protective devices, type and rated current for fault protection			
8	Presence and adequacy of circuit protective conductors			
9	Whether Low voltage cables segregated from Medium voltage cables			
10	Whether Cables separated / segregated from non electrical services			

11	Whether proper terminenclosures	nation of cables at		
12	Connections soundly made and	Insulation of conductor visible outside enclosure		
	under no undue strain	Connections of live conductors adequately enclosed		
		Adequately connected at point of entry to enclosure (glands, bushes etc.,)		
		Condition of accessories including socket outlets, switches & joint boxes		
13	Other special observaresults of particular in: Separately	ntions, if any record the spections applied		

5. Floor wise assessment of electrical Panel room

5. FIOOF	wise assessment of	<u>felectrical Panel room</u>			
SI.No		Heads	Result	Remarks	Suggestions on
				acceptable or Not)	improvement, if any
1	Presence of Main sv	vitch interlocking if two			
		e coming to Distribution panel			
2		t identification of circuit details			
	and protective device				
3	Presence of non sta	ndard (mixed) cable colour			
	warning notice at or	near consumer unit /			
	Distribution board				
4	Cables correctly sup	ported throughout their run or			
	not				
5	Condition of insulation	on of live parts			
6		for current carrying capacity			
	with regard to the ty	pe and nature of the			
	installation				
7		ive devices, type and rated			
	current for fault prote				
8		uacy of circuit protective			
	conductors	a adalas a suus mata difusiii			
9		e cables segregated from			
10	Medium voltage cab	parated / segregated from non			
10	electrical services	barated / segregated from non			
11		ive earthing conductor			
12	Adequacy of Neutra				
13	Whether proper tern				
	enclosures				
14	Connections	insulation of conductor			
	soundly made and	visible outside enclosure			
	under no	Connections of live			
	undue strain	conductors adequately			
		enclosed			
		Adequately connected at			
		point of entry to enclosure			
		(glands, bushes etc.,)			
		(8			
		Condition of accessories			
		including socket outlets,			
		switches & joint boxes			

15	Details switch	No of P	anels		
	gear panels	Rating	of panels		
		1	ement of P-P & P-N of Panels		
		1	ement of P-P & P-N of Panels		
		Conditi	on of Panels		
		Any oth	er observations		
16	Whether method of Electrical room is ac	_			
17	Total Electrical Load Floor	d of the	Air conditioning load		
			Light & power load		
18	Whether electrical lo				
19	Other special observesults of particular is separately				

**6.Assessment of Transformer** 

	Silient Of ITal																	
No. of	Capacity of		P-P	)		P-N		P	has	е	Tota	ıl	Neutral	Prot	Condition	Whether	Remark	Sugge
Trans	each	V	olta	ge	Vo	oltaç	ge	Cı	urre	nt	electr	ic	Earthing	ectiv	of	transform	s	st-ions
forme	Transformer	of	ead	ch	(	each	1		s		al loa	ıd	& its	е	insulation	ers	(Conditi	on
rs	S	Tr	ans	fo	Tr	ans	fo				consu	ım	adequacy	earth		loaded/u	on of	improv
	<ol> <li>Rating</li> </ol>	rı	mer	s	rı	mer	s				ptior	า		ing &		nder	machine	ement,
	2. make													its		loaded	accepta	if any
	3. type													adeq		and	ble or	,
	<b>,</b> , ,													uacy		extant	Not	
														'		thereof in		
																%		
		R	Υ	В	R	Υ	В	R	Υ	В	KW	Α						

7. Assessment of Elevator

N U M B E	J 1 3	Capacity of each elevator s  1. Rating 2.make 3.type	of each elevator s 1. Rating 2.make		P-P Voltage		P-N Voltage			Phase Currents		Total electrical load consumpti on		No Capa c-ity (KW) Volt curr ent on of motors					Neutral Earthing & its adequac y	Prote ctive earth ing & its adeq uacy	Condi tion of insula tions	Remark s (Conditi on of machin e accepta ble or Not	Sugge stions on improv ement, if any
			R	Υ	В	R	Υ	В	R	Υ	В	KW	Α										

8. Assessment of Pump

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N o of P	Capacit y of.	P- Vo	P oltag	e		Voltage Currents					Currents electrical load		Para	meter	s of the	pump r	motors	Earthing & its	Protec tive earthin g & its	Condit ion of insulat	Remar ks	Sugge stions on improv
u m p	each pump  1. Rating 2.make 3.type										consum ion	ρι	No	Ca pa cit y (K W)	Volt age	Curr ent	Conditio n of motors	adequac y	adequ acy	ions	(Condi tion of machi ne accept able or Not	ement, if any
		R	Y	В	R	Υ	В	R	Υ	В	KW	Α										

## 9. Assessment of earthing system

Earthing Continuity Testing: This Test is conducted to find out any equipment that has not been earthed properly and in compliance with *Indian Electricity Act 1956, IS-1200 part I and as per IS-3043 of 1966*. It is to be checked with the help of Continuity Testing Meter and Earth Resistance Meter

p <u>e cnecked v</u>	with the help of Continuity Testing Met	er and Earth Resis	tance Meter	
SI. No	Heads	Result	Remarks (acceptable or Not)	Suggestions with new technologically energy efficient, environment friendly, cost benefited air conditioning system
1	No of earth pit			
2	Туре			
3	Earthing test report			
4	Continuity test report			
5	Condition of total earthing system for the building. (Give detail report)			
6	Neutral Earthing & its adequacy			
7	Protective Earthing & its adequacy			
8	Other special observations, if any record the results of particular inspections applied separately			

10. Assessment of lighting protection system

SI. No	Heads	Result	Remarks (acceptable or Not	Suggestions with new technologically energy efficient, environment friendly, cost benefited air conditioning system
1	Number of terminals			
2	Number of down conductors			
3	Continuity of conductor			
4	Condition of the lightning conductor			
5	Joints condition			
6	Testing point on down conductor			
7	Earth conductor condition			
8	Earth resistance			
9	Other special observations, if any record			
	the results of			
	particular inspections applied			
	separately			

11. Assessment of Diesel Generating Set :

No of Diesel Gener ator Set	Capacity of each Diesel Generator Set 1. Rating 2.make 3.type	Diesel Voltage of each ng Diesel		bltage Voltage each each esel Diesel enerat Generat		Phase Currents		Total electrical load consumpti on		Neutral Earthing & its adequac y	Protective earthing & its adequacy	Conditio n of insulatio ns	Whether Diesel Generator Set over loaded/unde r loaded and extant thereof in %	Remarks (Conditio n of machine acceptabl e or Not)	Suggesti ons on improve ment, if any			
		R	Υ	В	R	Υ	В	R	Υ	В	KW	Α						

SIGNATURE WITH	SE	ΑL
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(OFFICER OF BRANCH / OFFICE)

NAME OF THE ELECTRICAL ENGINEER / CONSULTANT / CONTRACTOR:

SUPERVIOR'S VALID LICENSE NO:

DATE:

PLACE:

The particulars furnished in the application are true to the best of my/our knowledge & belief. I/we understand that if any of the particulars is found incorrect, even at a later stage, my/our contract will be cancelled.

SIGNATURE WITH SEAL

(CONSULTANT/CONTRACTOR)

DATE:

PLACE:

# Annexure-3 FORMAT FOR ELETRICAL ENERGY AUDIT FOR BRANCHES

BRANCH CODE & NAME	
ADDRESS	
SANCTIONED LOAD	
CONNECTED LOAD	
MONTHLY ELECTRICITY BILL (APPX)	
TOTAL TONNAGE OF AIR CONDITIONER LOAD	
AREA OF THE BRANCH	

#### **ELECTRICAL ENERGY AUDIT:**

S.No.	DESCRIPTION	Wattage	Recommendation
1.	Type of Electrical Fittings installed and its Lux level and Wattage		
2.	No of Ceiling Fan installed and its power consumption.		
3.	No. of Wall Fan installed and its power consumption		
4.	No of Air-conditioners and its capacity and power consumption of each.		
5.	No of computer installed and its power consumption.		
6.	UPS installed and its capacity		
7.	Any other gadgets installed and its power consumption.		
8.	Verification of electricity Bill for last 12 months and observation if any		
9	Leakage if any in the wiring system		

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SIGNATUR	RE & SEAL	. OF AL	JDITOR
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DATE: PLACE: