FORM III

(Installations of voltage exceeding 650 V)

Report / Application No. _____

Date of inspection by Electrical Inspector or self-certification by supplier/owner/consumer _____

Date of last inspection or self-certification _____

1. Consumer No. _____
2. Voltage and system of supply:

   (iii) Volts _____(ii) No. of Phases _____ (iii) AC/DC _____
3. Name of the consumer or owner _____
4. Address of the consumer or owner _____
5. Location of the premises _____
6. Particulars of the installations:

   (a) Transformers: (complete detail to be enclosed)

Make	S. No.	kVA/MVA rating	Voltage rating	Type
(i)				
(ii)				

   (b) Generators: (complete detail to be enclosed)

Make	S. No.	kVA/MVA rating	Voltage rating	Type
(i)				
(ii)				

   (c) List of Motors with rating, protection, overload setting, size of earth conductor used to be furnished

Make	S. No.	kW/MW rating	Voltage rating	Type
(i)				
(ii)				

   (d) List of equipment with complete details of HT /LT switchgears/ apparatus with their rating to be furnished):

   (i) _____

   (ii) _____

   (e) Total connected load kW / kVA _____ Complete list of connected loads to be furnished.

7. General condition of the installation:

Sl. No.	**Regulation No.**	**Requirements**	**Report**
1.	Regulation 3	Is the record of the designated persons properly made and kept up to date and duly attested?	Yes/No
2.	Regulation 5	Whether Electrical Safety Officer as required under the Regulation is designated?	Yes/No
	Regulation 14	(i) Is/Are there any visible sign(s) of overloading in respect of any apparatus?	Yes/No
		(ii) Whether any unauthorised temporary installation exist?	Yes/No

		(iii) Whether the motors and controlling equipment are being overhauled periodically and record kept of the same in a register?	Yes/No
		(iv) Whether the transformer oil samples are being tested periodically and results recorded in a register? State value of dielectric strength of oil.	Yes/No ---- kV/mm
		(v) Whether suitable lightning arresters have been provided near the transformers for protection against lightning?	Yes/No
		(vi) Whether earth resistance is being measured periodically once a year and results recorded in a register? Copy of record to be enclosed.	Yes/No
		(vii) Any other defect or condition which may be a source of danger. If yes, please explain?	Yes/No
		(viii) Whether operation and maintenance data has been clarified, categorised and computerised for prompt and easy retrieval?	Yes/No
		(ix) Whether residual life assessment and life extension programmes are being undertaken for installations or equipment of voltage exceeding 650 V (applicable for installations or equipment more than 15 years old)?	Yes/No
		(x) Whether all required type and routine tests at factory done for equipment? Deficiencies and discrepancies in above test report and results, if any, shall be reported.	Yes/No
		(xi) Are there deficiencies in construction with reference to Indian Standard requirements? Please specify.	Yes/No
4.	Regulation 15	Give report on condition of service lines, cables, wires, apparatus and such other fittings placed by the supplier or owner of the premises. If not satisfactory, give details.	Satisfactory/ Not Satisfactory
5.	Regulation 16	Whether suitable cut-outs/CBs provided by the supplier at the consumer's premises are within enclosed fire proof receptacle?	Yes/No
6.	Regulation 17	(i) Whether switches are provided on live conductors?	Yes/No
		(ii) Whether indication of a permanent nature is provided as per Regulation so as to distinguish earthed or earthed neutral conductor from the live conductor?	Yes/No
		(iii) Whether a direct line is provided on the neutral in the case of single-phase double pole iron clad switches/CBs instead of fuse?	Yes/No
7.	Regulation 18	(i) Whether earthed terminal is provided by the supplier?	Yes/No
		(ii) General visible condition of the earthing arrangement.	Satisfactory/ Not Satisfactory
8.	Regulation 19	(i) Are live parts in building inaccessible?	Yes/No
		(ii) Whether readily accessible switches have been provided for rendering them dead?	Yes/No

9.	Regulation 20	Whether "Danger Notice" in Hindi and the local language of the district and of a design as per the relevant standards is affixed permanently in conspicuous position?	Yes/No
10.	Regulation 21	(i) Whether the practice of working on live lines and apparatus is adopted? If so, have the safety measure been adopted as per Schedule I?	Yes/No
		(ii) Whether insulating floor or mats conforming to the relevant standards have been provided?	Yes/No
		(iii) Whether identification of panel has been provided on the front and the rear of the panel?	Yes/No
11.	Regulation 23	Whether flexible cables used for portable or transportable equipment covered under the Regulation, are heavily insulated and adequately protected from mechanical injury?	Yes/No
12.	Regulation 24	State the condition of metallic coverings provided for various conductors.	Satisfactory/ Not Satisfactory
13.	Regulation 26	Whether the circuits or apparatus intended for operating at different voltage(s) are distinguishable by means of indication(s) of permanent nature?	Yes/No
14.	Regulation 28	Whether all circuits and apparatus are so arranged that there is no danger of any part(s) becoming accidentally charged to any voltage beyond the limits of voltage for which it/they is/are intended?	Yes/No
15.	Regulation 29	(i) In the case of generating stations and enclosed sub stations, whether fire-buckets filled with clean dry sand have been conspicuously marked and kept in convenient location in addition to fire-extinguishers suitable for dealing with electric fires?	Yes/No
		(ii) Whether First Aid Boxes or cupboards conspicuously marked and properly equipped are provided and maintained?	Yes/No
		(iii) Is adequate staff trained in First Aid Treatment and firefighting?	Yes/No
16.	Regulation 30	(i) Whether instructions in English or Hindi and the local language of the district and where Hindi is the local language, in English and Hindi, for the resuscitation of persons suffering from electric shock have been affixed in a "conspicuous place"?	Yes/No
		(ii) Are the persons mentioned in this regulation able to apply instructions for resuscitation of persons suffering from electric shock?	Yes/No
17.	Regulation 36	State insulation resistance between conductors and earth in Mega Ohms.	----- Mega Ohms
18.	Regulation 37	(i) Whether a suitable linked switch, or a circuit breaker, or an emergency tripping device is placed near the point of commencement of supply so as to be readily accessible and capable of being easily operated to completely isolate the supply?	Yes/No
		(ii) Whether suitable linked switch or a circuit breaker to carry and break the full load current is provided on the secondary side of a transformer?	Yes/No

		(iii) Whether every distinct circuit is protected against excess electricity by means of a suitable circuit breaker or cutout?	Yes/No
		(iv) Whether linked switch or circuit breaker or emergency tripping device is provided near the motor or other apparatus at voltage exceeding 650 V but not exceeding 33kV for controlling supply to the motor or apparatus?	Yes/No
		(v) Whether adequate precautions are taken to ensure that no live parts are so exposed as to cause danger?	Yes/No
19.	Regulation 39	(i) Whether clear space of 100 cm is provided in front of the main switchboard?	Yes/No
		(ii) Whether the space behind the switchboard exceeds 75 cm in width or is less than 20 cm?	Yes/No
		(iii) In case the clear space behind the switchboard exceeds 75 cm, state whether a passage way from either end of the switchboard to a height of 1.80 metre is provided.	Yes/No
20.	Regulation 46	(i) Whether all conductors and apparatus including live parts thereof are inaccessible	Yes/No
		(ii) Whether all windings of motors or other apparatus are suitably protected?	Yes/No
		(iii) Whether the separation wall or fire wall between apparatuses or consumer premises, in a substation or a switching station with apparatus having more than 2000 litres of oil are installed, have been provided as required under the regulation?	Yes/No
		(iv) Where 9000 litre or more of oil is used in any one oil tank, has provision been made for draining away or removal of oil which may leak or escape from such tank(s)?	Yes/No
		(v) Whether suitable firefighting system as per the regulation has been provided?	Yes/No
		(vi) Whether trenches inside substation containing cables are filled with non-inflammable material or completely covered with non-inflammable slabs?	Yes/No
		(vii) Are conductors and apparatus so arranged that they may be made dead in sections for carrying out work thereon?	Yes/No
21.	Regulation 47	Whether protections and interlocks have been provided? Give the details of the protection schemes and their settings.	Yes/No
22.	Regulation 50	(i) Have all non-current carrying metal parts associated with the installation been effectively earthed with the earthing system or mat by two separate and distinct connections?	Yes/No
		(ii) Is the earth wire free from any mechanical damage?	Yes/No
		(iii) Has the neutral point at the transformer and generator been earthed by two separate and distinct connections with earth?	Yes/No

		(iv) Have the metal casings or metallic coverings containing or protecting any electric supply line or apparatus been properly earthed and so joined and connected across all junction boxes as to make good mechanical and electrical connections throughout their whole length?	Yes/No
		(v) Whether earthing has been properly executed and has been tested. If yes, give value of earth resistance.	Yes/No ___Ohm
23.	Regulation 51	(i) Is the outdoor (except pole type) substation efficiently protected by fencing not less than 1.8 metre in height?	Yes/No
		(ii) Whether the mounting of a transformer on a single pole or H pole is done as per relevant standard.	Yes/No
24	Regulation 52	(i) Where platform type construction is used for pole type substation, has sufficient space for a man to stand on the platform been provided?	Yes/No
		(ii) Has hand-rail been provided and connected with earth (if metallic and if substation has not been erected on wooden supports and wooden platform)?	Yes/No
25.	Regulation 53	Has suitable provision been made for immediate and automatic or manual discharge of every static condenser on disconnection of supply?	Yes/No
26	Overhead Lines	(i) What is the minimum size of the conductors of overhead lines used? State the type of conductors. (Regulation 57)	Minimum size of Conductor ---
		(ii) Whether clearances above ground of the lowest conductor of overhead lines are as per regulation 60? State clearance.	Yes/No --- metre
		(iii) On the basis of maximum sag, whether vertical clearances where the line of voltage exceeding 650 V passes above or adjacent to any building or part of a building as per regulation 63? State clearance.	Yes/No --- metre
		(iv) On the basis of maximum deflection due to wind pressure, whether horizontal clearances between the nearest conductor and any part of such building are as per regulation 63? State clearance.	Yes/No --- metre
		(v) Where conductors forming parts of system at different voltages are erected on the same supports, whether adequate provision has been made as per regulation 64 to guard against danger to linemen and others from the lower voltage system being charged above its normal working voltage by leakage from or contact with the higher voltage system?	Yes/No
		(vi) Where overhead lines cross or are in proximity to each other whether they have been suitably protected to guard against possibility of their coming in contact with each other as per regulation 71?	Yes/No
		(vii) Has every guard wire been properly earthed as per regulation 72 at each point at which its electrical continuity is broken?	Yes/No

		(viii) (a) Whether metal supports of overhead lines and metallic fittings attached thereto are permanently earthed as per regulation 74? (b) Has each stay-wire (except in case where an insulator has been placed in it at a height not less than 3 metre from the ground) been earthed as per regulation 74?	Yes/No Yes/No
		(ix) (a) Whether overhead line is suitably protected with a device for rendering the line electrically harmless in case	Yes/No
		it breaks as per regulation 76? (b) Whether anti-climbing devices have been provided at each support as per regulation 75?	Yes/No
		(x) (a) Has the owner of overhead lines adopted efficient means for diverting to earth any electrical surges due to lightning in every overhead line which is so exposed as to be liable to injury from lightning as per regulation 77? (b) Whether earth lead from the lightning arresters is connected to a separate earth electrode as per regulation 77?	Yes/No Yes/No
		(xi) Whether unused overhead lines are maintained in a safe mechanical condition as per regulation 78?	Yes/No
		(xii) Whether statutory clearances from Authorities i.e. Forest Department/Railways/PTCC/Defence (AHQ) /Civil Aviation have been taken as per the relevant standards. If yes, enclose copies of the same.	Yes/No
		(xiii) Any other remarks.	Yes/No

In addition to above, following electrical equipment wise test details to be given, if applicable:

Sl. No.	**Equipment**	**Test Conducted**	**Test Results**	**Remarks**
1.	Linked Switch with fuses (s)	(i) Mechanical operation	Smooth/Trouble some	
		(ii) Rating of Fuse	-------Amps	
		(iii) Contact of blades	Full/Partial	
2.	Isolator (Sl. No.--- Make: Capacity:	(i) Mechanical operation	Ok/Not Ok	
		(ii) Remote Operation	OK/Not OK	
		(iii) Local Operation	OK/Not OK	
		(iv) Measurement of contact resistance		
		(v) Interlocking with earth switch	OK/Not OK	
		(vi) Interlocking with Circuit Breaker	OK/Not OK	
		(vii) IR Values • Open condition • Closed condition	Phase to Phase and Phase to Earth --- M Ohm --- M Ohm --- M Ohm --- M Ohm	
3.	Circuit Breaker (Circuit breaker location and no.) Circuit breaker control circuits	(i) Rating of Circuit Breaker • Type • Voltage • Normal Current • Rupturing Current	---------- ---------- kV ---------- Amps ---------- kA	

		(ii) IR Values • Open condition • Closed Condition	Phase to Phase and Phase to Earth --- M Ohm --- M Ohm --- M Ohm --- M Ohm	
		(iii) Contact Resistance including Dynamic Contact Resistance Measurement	----------micro ohm	
		(iv) Mechanical Operation	Instant smooth /time gap (Sec.)	
		(v) Remote operation	OK/Not OK	
		(vi) Local Operation	OK/Not OK	
		(vii) Interlocking with Isolator	OK/Not OK	
		(viii) Interlocking with earth switch	OK/Not OK	
		(ix) Alarm and Trip for OTI/WTI/Buchholz/PRV/etc.,	OK/Not OK	
		(x) Earth Fault Relay	OK/Not OK	
		(xi) Over Current Relay	OK/Not OK	
		(xii) Under Voltage Relay	OK/Not OK	
		(xiii) other safety Alarms	OK/Not OK	
		(xiv) Whether all the provisions of Regulation 37 are satisfactory?	OK/Not OK	
4.	Transformer Transformer No., Location, (Transformer Sl. No. Make, Capacity, Voltage Ratio)	(i) Insulation Resistance Values • HT to LT • HT to Earth • LT to Earth	 ----------M ohm ----------M ohm ----------M ohm	
		(ii) Break down Voltage test • Oil sample I (Top) • Oil Sample II (Bottom)	 ---------- kV ---------- kV	
		(iii) Vector Group Test	OK/Not OK	
		(iv) Polarity Tests	OK/Not OK	
		(v) Magnetic Balance	OK/Not OK	
		(vi) Tan Delta Test	OK/Not OK	
		(vii) Oil level in conservator tank	OK/Not OK	
		(viii) Oil level in breather cup	OK/Not OK	
		(ix) OTI/WTI settings	A/T--- ^{0}C/--- ^{0}C A/T---^{0}C/--- ^{0}C	
		(x) OTI/WTI alarm and trip operation	OK/Not OK	
		(xi) Operation of Buchholz relay	OK/Not OK	
		(xii) Operation of PRV	OK/Not OK	
		(xiii) Oil leakage	OK/Not OK	
		(xiv) Interlock of door switch of dry transformer	OK/Not OK	
		(xv) Clearances • Side Clearance: • Between two Transformers:	 ---------cm ----------Metre	

		(xvi) Body Earth Resistance	---------- Ohm
		(xvii) Neutral Earth Resistance	N_1---Ohm, N_2---Ohm
		(xviii) Earth Flat Size Material used □ Body: □ Neutral:	 ---------- ----------
		(xix) Operation of ON LOAD & OFF LOAD Tap Changers	OK/Not OK
		(xx) Sweep Frequency Resonance Analysis Test (SFRA)	OK/Not OK
		(xxi) Dielectric Frequency Resonance Analysis (DFRA) Test	OK/Not OK
		(xxii) Partial Discharge Tests	OK/Not OK
5	DG's: Generator No., Location, (Alternator and Engine Sl. No. Make, Capacity)	(i) Type of Generator	
		(ii) Interlocking with other supply sources	OK/Not OK
		(iii) Body earth resistance	---------- Ohm
		(iv) Neutral earth resistance	N_1---Ohm N_2---Ohm
		(v) Earth Flat Size, Material used (Cu/Al) • Body: • Neutral:	 ---------- ----------
		(vi) Generator Protection details	----------
6.	Cable (Details to be given: size, length, type)	(i) Insulation Resistance Values: • Ph - Ph: • Ph – Earth: • Ph – Earth + other Ph:	 --------- M Ohm --------- M Ohm --------- M Ohm
		(ii) Cable trays	Provided/ Not provided
		(iii) Cable tray earthing	OK/Not OK
		(iv) Cables bending radius	OK/Not OK ----------metre
7.	Panels	(i) No. of panels	___ Nos
		(ii) Location of panel	To be enclosed
		(iii) Rating of the panel	____Amp
		(iv) Size and current rating of the main Bus bars and the distribution Bus bars of the panel	____ mm, _____Amp
		(v) Whether the Bus bar size of the panel suitable to rating of the panel	Yes/No
		(vi) IP Protection of panel	_____
		(vii) Type of cable entry	Top Entry/Bottom Entry
		(viii) No. of Incomers and Bus couplers in a Panel	___ Nos
		(ix) Ratings of the Circuit Breakers	____Amp
		(x) No. of MCCBs of each rating in the panel	___ Nos
		(xi) No. of spare MCCBs of each rating	___ Nos

		(xii) Panel Clearance from the wall	____mm	
		(xiii) Clearance between two panels i.e. adjacent panels	____mm	
		(xiv) Whether all the provisions of Regulation 39 followed	Yes / No	
		(xv) Size of the Earth strip used for earthing of the panel	___sqmm	
8.	Earthing	(i) Metal and size of Earth Strips	Cu/Al/GI --- Sqmm	
		(ii) Type of earthing	Plate/Pipe/Counterpoise	
		(iii) Location and No. of earth electrode	____Nos	
		(iv) Values of Earth resistance of each earth electrode and Grid	_____Ω	
		(v) Earth mat resistance	_____Ω	
9.	Potential Transformer	(i) Ratio test	OK/not OK	
		(ii) Polarity test	OK/not OK	
		(iii) BDV of oil	---------- kV	
		(iv) IR test	(R) P-E-------M Ohm (Y) P-E-------M Ohm (B) P-E-------M Ohm	
		(v) Tan Delta and Capacitance measurement	_____	
10.	Current Transformer	(i) Ratio test	OK/not OK	
		(ii) Polarity test	OK/not OK	
		(iii) BDV of oil	---------- kV	
		(iv) IR test	(R) P-E-------M Ohm (Y) P-E-------M Ohm (B) P-E-------M Ohm	
		(v) Tan Delta and Capacitance measurement	_____	
11.	Overhead lines and DP structure	(i) Size of the poles of DP structure	_____	
		(ii) Clearance between phases to phase and phase to earth.	_____	
		(iii) Ground clearance of the conductors.	_____	
		(iv) Check of electrical clearance along the route of overhead line,	Ok/ Not Ok	
		(v) Check of guarding and clearance at road crossings.	Ok/ Not Ok	
		(vi) Check the footings of the poles.	Ok/ Not Ok	
		(vii) Earthing arrangements	Ok/ Not Ok	
		(viii) What is the minimum size of the conductors of overhead lines used? State the type of conductors.	_____	
		(ix) Whether all the provisions of regulation 60, 62, 63, 64, 71, 72 and 74 are satisfied.	Yes / No	
General Observations:				

1.	Check of phase to phase, phase to ground and sectional clearance	
2.	Check of Manufacture test reports of individual equipment (Copies to be enclosed)	
3.	General observation and views (Specific deviation from the requirements of the Regulations shall be clearly brought out)	

Date:

Signature of the supplier/ Owner / Consumer

Name _____

Designation _____

File No. _____

To: Office of Electrical Inspector for ……...