

**Checklist No. 2—Additional Items For New LV Installation**

Installation Address: \_\_\_\_\_

**Tested by/Date**  
**(N/A if not applicable)**

**(a) Switchboards, Circuit Breakers and Main Switches**

- (i) Safe access and adequate clearance space provided in compliance with Code 4E. \_\_\_\_\_
- (ii) Number of source of supply: \_\_\_\_\_  
and the rating of each of them: \_\_\_\_\_
- (iii) Maximum loading approved by the electricity supplier: \_\_\_\_\_
- (iv) Suitable interlock scheme provided to prevent parallel operation of two or more sources of supply and 4-pole incoming and interconnecting circuit breakers provided for supply to be taken from more than one source and is interconnected in compliance with Code 6B(1)(c). \_\_\_\_\_
- (v) Electrically and mechanically interlocked 4-pole changeover device(s) where standby generator set(s) is installed in compliance with Code 8A(1)(d). \_\_\_\_\_
- (vi) The breaking capacity of the main switch is \_\_\_\_\_ kA and all circuit breakers/inter-connection devices are able to withstand the prospective fault current in compliance with Code 9C. \_\_\_\_\_

**Tested by/Date**  
**(N/A if not applicable)**

- |        |                                                                                                                                            |       |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------|-------|
| (vii)  | Protective relays have been correctly set and overcurrent protective devices suitably set for all circuits in compliance with Code 21A(i). | _____ |
| (viii) | Protective type C.T. are used for protective relays.                                                                                       | _____ |
| (ix)   | A means of isolation provided for every circuit in compliance with Code 8A(1)(c)(i).                                                       | _____ |
| (x)    | Operation of circuit breakers and main switches checked in compliance with Code 21B(9).                                                    | _____ |
| (xi)   | Control, indication and alarm functions checked in compliance with Code 21B(2)(viii).                                                      | _____ |
| (xii)  | No undersized conductor used between the main busbar and fuse/ MCB's in compliance with Code 13A(3).                                       | _____ |
| (xiii) | Fuses/MCB's matching the lowest rated conductor in the circuit in compliance with Code 9B.                                                 | _____ |
| (xiv)  | Suitable cable terminations provided in compliance with Code 25D.                                                                          | _____ |
| (xv)   | Cable conductors of correct phases connected in compliance with Code 21A(b).                                                               | _____ |
| (xvi)  | Single-pole devices for protection or switching connected in phase conductors only in compliance with Code 10B.                            | _____ |

**Tested by/Date**  
**(N/A if not applicable)**

**(b) Busbar Trunking System including Rising Mains**

- (i) The current rating of the rising mains is \_\_\_\_\_ amperes. \_\_\_\_\_
- (ii) The rising mains, lateral mains and meter boards positioned at places accessible from public area. \_\_\_\_\_
- (iii) Fire barriers provided where the busbar trunking system passes through floor slabs or walls designated as fire barriers in compliance with Code 14A(3). \_\_\_\_\_
- (iv) Cables passing through smoke lobby protected by enclosures of adequate fire rating. \_\_\_\_\_
- (v) Non-sheathed cables protected by conduit, trunking or ducting in compliance with Code 15. \_\_\_\_\_
- (vi) Busbar trunking systems, cables and ductings adequately supported in compliance with Code 14A(2). \_\_\_\_\_
- (vii) Armoured cables properly terminated to metal casing or trunking by proper cable glands in compliance with Code 25D(7). \_\_\_\_\_
- (viii) Suitable cable lugs used for terminating cables in compliance with Code 4, Code 13C and Code 25D. \_\_\_\_\_

**Tested by/Date**  
**(N/A if not applicable)**

- (ix) Precaution against corrosion taking on aluminium conductor joined to copper conductor in compliance with Code 25D(7)(d)(ii). \_\_\_\_\_
- (x) Cutout fuses for tapping off supply fitted with insulated carriers in compliance with Code 26B(6)(e). \_\_\_\_\_

**(c) Overhead Lines**

- (i) A steel carrier wire provided between poles to prevent strain on conductors in compliance with Code 16A and 16H. \_\_\_\_\_
- (ii) Substantial steel poles used to suspend cables crossing vehicular passes in compliance with Code 26K(3)(b)(ii). \_\_\_\_\_
- (iii) Overhead cables supported on suitable insulators in compliance with Code 16B. \_\_\_\_\_
- (iv) Suitable stay wires installed on the terminal poles and on each pole at which the line changes its direction in compliance with Code 16G(1). \_\_\_\_\_
- (v) Minimum clearance of overhead lines to ground, roads and obstacles maintained in compliance with Code 16E(2)(a), (b) and (c). \_\_\_\_\_

**Tested by/Date**  
**(N/A if not applicable)**

**(d) Main Cables**

- (i) The cross-sectional area of each core of the main supply cable is \_\_\_\_\_mm<sup>2</sup>. Number of cables in parallel, if connected is\_\_\_\_\_. \_\_\_\_\_
- (ii) Armoured cables properly terminated to metal casing or trunking by proper cable glands in compliance with Code 25D(7). \_\_\_\_\_
- (iii) Cables passing through smoke lobby protected by enclosures of adequate fire rating. \_\_\_\_\_
- (iv) Non-sheathed cables protected by conduit, trunking or ducting in compliance with Code 15. \_\_\_\_\_
- (v) Cables and ductings adequately supported in compliance with Code 14A(2). \_\_\_\_\_
- (vi) Cables at distribution board or busbar terminated with cable lugs in compliance with Code 4, Code 13C and Code 25D. \_\_\_\_\_
- (vii) Main cables connected up with correct polarity \_\_\_\_\_

**(e) Distribution Board**

- (i) Safe access and adequate clearance space provided in compliance with Code 4E. \_\_\_\_\_

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- (ii) Distribution boards securely mounted on suitable supports in compliance with Code 14A(2). \_\_\_\_\_
- (iii) A suitable switch provided to control each distribution board in compliance with Code 8A(1)(a). \_\_\_\_\_
- (iv) Phase barriers for 3-phase distribution board provided in compliance with Code 21A(g). \_\_\_\_\_
- (v) The breaking capacity of MCB is \_\_\_\_\_ kA in compliance with Code 9. \_\_\_\_\_
- (vi) Suitable tools for withdrawal of fuses at a fuse board provided, where necessary in compliance with Code 9E(d). \_\_\_\_\_
- (vii) Circuits connected to MCB or fuse in accordance with the schematic diagram in compliance with Code 6A(b). \_\_\_\_\_

**(f) Final Circuits**

- (i) All fuses and single pole switches connected to the phase conductors only with correct polarity. \_\_\_\_\_
- (ii) Wiring for emergency lightings and fire services installation segregated from other wirings in compliance with Code 5B(1)(b). \_\_\_\_\_
- (iii) Low voltage circuits segregated from extra low voltage circuits in compliance with Code 5B(1)(a). \_\_\_\_\_

**Tested by/Date**  
**(N/A if not applicable)**

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|--------|------------------------------------------------------------------------------------------------------------------------------------------|-------|
| (iv)   | Cables of all phases and neutral of the circuit bunched and contained in the same conduit in compliance with Code 25A(1)(f).             | _____ |
| (v)    | Exposed insulated non-sheathed cables protected in compliance with Code 15.                                                              | _____ |
| (vi)   | Wiring inside false ceiling protected by conduit/trunking or metallic sheath in compliance with Code 25C(1)(f).                          | _____ |
| (vii)  | Socket outlets installed below 1.5m from floor being shuttered type complying to the prescribed requirements.                            | _____ |
| (viii) | No socket outlet installed close to water tap, gas tap or cooker so as to avoid danger in compliance with Code 25E(d).                   | _____ |
| (ix)   | Floor socket outlets protected with suitable cover in compliance with Code 25E(b).                                                       | _____ |
| (x)    | No 2-pin sockets installed. All socket outlets connected with protective conductors and live conductors terminated at correct terminals. | _____ |
| (xi)   | Radial final circuits using 5A/15A socket outlets in compliance with Code 6D.                                                            | _____ |
| (xii)  | Final circuits using 13A socket outlets in compliance with Code 6E.                                                                      | _____ |

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(xiii) Final circuits using industrial socket outlets in compliance with Code 6F or 6G or 6H.

\_\_\_\_\_

(xiv) Circuit protective conductor is formed by the enclosure and a separate protective conductor between the earthing terminal of socket outlet and its associated metal box provided in compliance with Code 11D(3).

\_\_\_\_\_

(xv) Circuit protective conductor is not formed by the enclosure and a separate protective conductor to the earthing terminal of socket outlet provided in compliance with Code 11D(3).

\_\_\_\_\_

(xvi) Residual current device of 30 mA rated residual operating current provided for all socket outlets in compliance with Code 11B(b)(i).

\_\_\_\_\_

(xvii) Means of isolation provided for every fixed appliance in compliance with Code 8A(1)(c).

\_\_\_\_\_

(xviii) All chokes, starters and capacitors of discharge lamps enclosed in earthed metal box(es) and suitably ventilated in compliance with Code 26H(4)(c).

\_\_\_\_\_

(xix) Phase conductors connected to the centre contact of the Edison-type screw lamp holders in compliance with Code 21B(6)(ii).

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**Tested by/Date**  
**(N/A if not applicable)**

- |         |                                                                                                                                                                                                                                                                   |       |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| (xx)    | No switches other than a switch fed from a safety source or operated by an insulation cord or rod or a push-button type of switch having an insulated button of a large surface area provided in bathrooms in compliance with Code 26A(3)(d).                     | _____ |
| (xxi)   | Shaver supply unit complying with IEC 61558-2-5 or equivalent in compliance with Code 26A(3)(e).                                                                                                                                                                  | _____ |
| (xxii)  | Socket outlet in bathroom installed beyond Zone 2 (i.e. 0.6m away from shower basin or bathtub) protected by an RCD with a residual operating current not exceeding 30mA or protected by an isolating transformer to IEC 61558 in compliance with Code 26A(3)(j). | _____ |
| (xxiii) | No fixed luminaire nor fixed heater having unguarded heating elements installed within reach of a person using the bath or shower in compliance with Code 26A(3)(h).                                                                                              | _____ |
| (xxiv)  | All circuits supplying electrical equipment with exposed conductive parts within 2.25m height above finished floor level in bathroom protected by RCD having a rated residual operating current not exceeding 30mA in compliance with Code 26A(3)(a).             | _____ |
| (xxv)   | Appliances exposed to weather being splashproof type in compliance with Code 15A.                                                                                                                                                                                 | _____ |

**Tested by/Date**  
**(N/A if not applicable)**

(xxvi) Luminaires, switches, sockets and plugs, cable couplers installed outdoor, being splashproof type in compliance with Code 15A.

\_\_\_\_\_

(xxvii) General/site lighting readily accessible to the public supplied from a safety source in compliance with Code 26K(3).

\_\_\_\_\_

(xxviii) General/site lighting not readily accessible to the public and not supplied from a safety source, protected by RCD having a rated residual operating current not exceeding 30 mA.

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**(g) Motors**

(i) A local switch provided to control every motor in compliance with Code 8A(4)(a).

\_\_\_\_\_

(ii) Means provided to prevent unexpected restarting of motors where such restarting might cause danger in compliance with Code 8A(4)(c).

\_\_\_\_\_

(iii) Flexible conduits terminated with suitable brass bushes in compliance with Code 25A(2)(b)(i).

\_\_\_\_\_

(iv) Separate supply to motor heaters having its terminals screened, with warning notice provided.

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**Tested by/Date**  
**(N/A if not applicable)**

**(h) Earthing**

- (i) Rod electrode(s) having a minimum diameter 12.5mm copper or 16mm galvanised or stainless steel used in compliance with Code 12C(2)(a) and (b). \_\_\_\_\_
- (ii) Copper tape electrode having a cross-section of not less than 25mm x 3mm in compliance with Code 12C(3)(a). \_\_\_\_\_
- (iii) Copper plate electrode not less than 3mm in thickness and having a maximum dimension of 1 200mm x 1 200mm in compliance with Code 12C(4). \_\_\_\_\_
- (iv) No gas/water pipe used as earth electrodes in compliance with Code 12C(1)(b). \_\_\_\_\_
- (v) A test link provided at the main earthing terminal. \_\_\_\_\_
- (vi) Minimum size of protective conductor used in compliance with Table 11(1). \_\_\_\_\_
- (vii) Protective conductor up to and including 6mm<sup>2</sup> with green and yellow insulation sheath used throughout its length. \_\_\_\_\_

**Tested by/Date**

**(N/A if not applicable)**

- (viii) Bonding conductors of \_\_\_\_\_mm<sup>2</sup>  
(not less than 150mm<sup>2</sup> copper  
equivalent) used for connection to  
the earthing terminal of the  
electricity supplier's transformer(s) in  
compliance with Code 11G(b).

\_\_\_\_\_

- (ix) Bonding conductors of \_\_\_\_\_mm<sup>2</sup>  
(not less than 150mm<sup>2</sup> copper  
equivalent) used for connection to  
the exposed conductive parts of  
the electricity supplier's  
underground cable(s) in  
compliance with Code 11G(b).

\_\_\_\_\_

- (x) Copper links provided at joints of  
metallic trunking which forms part of  
a protective conductor in compliance  
with Code 14A.

\_\_\_\_\_

- (xi) Separate protective conductors  
provided for all flexible conduits in  
compliance with Code 11D(3)(b).

\_\_\_\_\_

**(i) Lightning Protection**

- (i) Air termination network/down  
conductor/earth termination network  
having good continuity in  
compliance with relevant  
standard listed under Code 26I.

\_\_\_\_\_

- (ii) Joints and connections are  
mechanically and electrically sound  
in compliance with relevant standard  
listed under Code 26I.

\_\_\_\_\_

**Tested by/Date**  
**(N/A if not applicable)**

- |        |                                                                                                                                                                                                    |       |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| (iii)  | Connection link to the main earthing terminal provided in compliance with relevant standard listed under Code 26I.                                                                                 | _____ |
| (iv)   | Test joint provided in compliance with relevant standard listed under Code 26I.                                                                                                                    | _____ |
| (v)    | Rod electrode(s) having a minimum diameter 12.5mm copper or 16mm galvanised or stainless steel used in compliance with Code 12C(2)(a) and (b).                                                     | _____ |
| (vi)   | Copper tape electrode having a cross-section of not less than 25mm x 3mm in compliance with Code 12C(3)(a).                                                                                        | _____ |
| (vii)  | Copper plate electrode not less than 3mm in thickness and having a maximum dimension of 1 200mm x 1 200mm in compliance with Code 12C(4).                                                          | _____ |
| (viii) | No gas/water pipe used as earth electrodes in compliance with Code 12C(1)(b).                                                                                                                      | _____ |
| (ix)   | Measured earth termination network resistance to earth not more than 10 Ohm when the connection to main earthing terminal disconnected in compliance with relevant standard listed under Code 26I. | _____ |

**Tested by/Date**  
**(N/A if not applicable)**

- (x) No evidence of corrosion likely to lead deterioration of the lightning protection system.

\_\_\_\_\_

**(j) High Voltage Discharge Lighting (Neon Signs)**

- (i) \_\_\_\_\_ ampere control switch fitted with a removable handle or locking facilities in compliance with Code 26H(2)(b).
- (ii) Fireman's switch provided with the 'OFF' position at the top in compliance with Code 8B(4)(g)(ii).
- (iii) High voltage cables exceeding 1 metre in length for connection between lamps and transformers, being metal sheathed or armoured.
- (iv) Bare or lightly insulated conductors for high voltage connection protected with glass tubing.

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**(k) Warning Notices and Labels**

- (i) Warning notices for substations and switchrooms provided in compliance with Code 17.
- (ii) Warning notices for earthing and main bonding connections provided in compliance with Code 17.
- (iii) All switchgears, distribution boards and electrical equipment properly labelled in compliance with Code 4D(1).

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Tested by/Date**

**(N/A if not applicable)**

**(I) Installation Having Both New and Old Cable Colours**

- (i) Warning notice provided in compliance with Code 17 and Appendix 18. \_\_\_\_\_
- (ii) Proper labels provided near the cable termination interface to identify new colour cables/conductors for 1-phase circuits in compliance with Appendix 18. \_\_\_\_\_
- (iii) Proper labels provided near the cable termination interface to identify both the new and old colour cables / conductors for 3-phase circuits in compliance with Appendix 18. \_\_\_\_\_
- (iv) Conductors are properly identified in compliance with Code 13D(2). \_\_\_\_\_

Remarks: REC and REW are required to ensure their responsible fixed electrical installation is able to comply with the relevant requirements of this Code of Practice, rather than the items as listed in the checklists only.