Checklist No. 1—Items For New LV Installation or Items For Periodic Testing of LV Installations

Installation Address: _____

		Tested by/Date (N/A if not applicable)
(a)	**Switchboards, Circuit Breakers and Main Switches**	
(i)	No visible damage to impair safety.	
(ii)	Safe access provided.	_____
(iii)	Every circuit breaker, main switch and fuse holder(s) provided with up-to-date, legible and durable rating labels giving their ratings.	_____
(iv)	Every circuit breaker and main switch provided with a legible and durable identification label.	_____
(v)	An up-to-date schematic diagram displayed to show the main distribution system.	_____
(vi)	Link of adequate size installed in neutral circuit. A continuity tester and proper tools were used to confirm that the neutral link maintained electrical continuity and was not loose.	_____

		Tested by/Date (N/A if not applicable)
(vii)	All accessible live parts screened with insulating plate or earthed metal.	_____
(viii)	The overload and fault current protection characteristics of all circuit breakers verified with secondary injection test instruments where appropriate.	_____
(ix)	Lowest insulation resistance being ___Mohms (not less than 1 Mohm) measured between phases/neutral/ earth.	_____
(x)	All exposed conductive parts effectively earthed with a maximum earth fault loop impedance being ____ohms.	_____
(xi)	The electrical installation and its surrounding area were visually inspected for presence of water seepage; if present, the owner of fixed electrical installation was notified to follow up and take appropriate protective measures.	_____
(xii)	Surface temperature of the panel of switchboard in operation and ambient temperature were measured and recorded at ____°C and ____°C respectively, and temperature difference was ____°C.	_____

	Tested by/Date (N/A if not applicable)
(xiii) REPS supply circuit and/or utility supply circuit, where applicable, isolated for dual power supply sources.	
(The following item(s) under this section shall be included for low voltage installations which was connected to supply after 1st Jun 1992)	
(xiv) An up-to-date notice of periodic inspection and testing provided at point of supply (i.e. a switchboard, a circuit breaker or a distribution board) of the installation in compliance with Code 17D.	

(b) Substations

(i) The electrical installation and its surrounding area were visually inspected for presence of water seepage; if present, the owner of fixed electrical installation was notified to follow up and take appropriate protective measures.	
(The following item(s) under this section shall be included for low voltage installations which was connected to supply after 1st Jun 1992)	
(ii) A warning notice 'DANGER SUBSTATION, UNAUTHORISED ENTRY PROHIBITED' and '危險——電力分站，未經授權不得內進' provided at every entrance of substations in compliance with Code 17A(1).	

		Tested by/Date (N/A if not applicable)
(iii)	Suitable locking facilities provided for HV substations in compliance with Code 4F(1)(c).	
(iv)	Suitable lighting provided in compliance with Code 4F(3)(a).	
(v)	Suitable ventilation provided in compliance with Code 4F(3)(b).	
(vi)	Entrance/exit free of obstruction in compliance with Code 4F(2)(c).	

(c) Switchrooms

(i)	The electrical installation and its surrounding area were visually inspected for presence of water seepage; if present, the owner of fixed electrical installation was notified to follow up and take appropriate protective measures.	

(The following item(s) under this section shall be included for low voltage installations which was connected to supply after 1st Jun 1992)

(ii)	A warning notice 'DANGER —— ELECTRICITY, UNAUTHORISED ENTRY PROHIBITED' and ' 危險 —— 有電，未經授權不得內進 ' provided at every entrance of switchrooms in compliance with Code 17A(2).	
(iii)	Suitable locking facilities provided for HV Switchrooms in compliance with Code 4F(1)(c).	

		Tested by/Date (N/A if not applicable)
(iv)	Suitable lighting provided in compliance with Code 4F(3)(a).	_____
(v)	Suitable ventilation provided in compliance with Code 4F(3)(b).	_____
(vi)	Entrance/exit free of obstruction in compliance with Code 4F(2)(c).	_____

(d) Busbar Trunking System including Rising Mains

(i)	No visible damage to impair safety.	_____
(ii)	Phase identification marked on both ends of main cable/ conductor, and at terminations.	_____
(iii)	All joints of metal conduit or trunking to be mechanically sound, electrically continuous and protected against corrosion.	_____
(iv)	All accessible live parts screened with an insulating plate or earthed metal.	_____
(v)	Lowest insulation resistance being _____Mohms (not less than 1 Mohm) measured between phases/neutral/ earth.	_____
(vi)	All metal conduit or trunking effectively earthed with a maximum earth fault loop impedance being _____ohms.	_____

		Tested by/Date (N/A if not applicable)
(vii)	The electrical installation and its surrounding area were visually inspected for presence of water seepage; if present, the owner of fixed electrical installation was notified to follow up and take appropriate protective measures.	_____

(e) Meter Board/Box

(i)	No visible damage to impair safety.	_____
(ii)	Safe access provided.	_____
(iii)	All exposed metal parts effectively earthed with a maximum earth fault loop impedance being _____ohms.	_____
(iv)	The electrical installation and its surrounding area were visually inspected for presence of water seepage; if present, the owner of fixed electrical installation was notified to follow up and take appropriate protective measures.	_____

(f) Overhead Lines

(i)	No visible damage to impair safety.	_____
(ii)	A minimum height of ____metres from ground (not less than 5.8 metres for lines acrossing any place accessible to vehicular traffic, 5.2 metres in other places or not less than the tallest height restriction of _____metres).	_____

		Tested by/Date (N/A if not applicable)
(iii)	Lowest insulation resistance being _____ Mohms (not less than 1 Mohm) measured between phases/ neutral/earth.	
(iv)	All metal work associated with every steel pole effectively earthed.	

(g) Main Cables

(i)	No visible damage to impair safety.	
(ii)	Cables protected against mechanical damage.	
(iii)	Correct phase identification provided at both ends of the cable.	
(iv)	Lowest insulation resistance being _____Mohms (not less than 1 Mohm) measured between cores and cores to earth.	
(v)	All exposed metal parts including the cable armour effectively earthed with a maximum earth fault loop impedance being _____ohms.	
(vi)	The electrical installation and its surrounding area were visually inspected for presence of water seepage; if present, the owner of fixed electrical installation was notified to follow up and take appropriate protective measures.	

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

(h) Distribution Board

(i) No visible damage to impair safety. _____

(ii) No fuse installed in the neutral circuit. _____

(iii) All live parts screened with an insulating plate or earthed metal. _____

(iv) Phase identification provided on the distribution board. _____

(v) Insulation resistance of not less than 1 Mohm measured between phases/ neutral/ earth. _____

(vi) All exposed metal parts effectively earthed. _____

(vii) The electrical installation and its surrounding area were visually inspected for presence of water seepage; if present, the owner of fixed electrical installation was notified to follow up and take appropriate protective measures. _____

(The following item(s) under this section shall be included for low voltage installations which was connected to supply after 1st Jun 1992)

(viii) A warning notice 'DANGER' and ' 危險 ' provided on the front panel of every distribution board in compliance with Code 17A(3). _____

		Tested by/Date (N/A if not applicable)
(ix)	A notice of periodic testing provided at or near the main distribution board incorporating a residual current device (RCD) in compliance with Code 17E.	

(i) Final Circuits

(i)	No visible damage to impair safety.	
(ii)	All non-armoured cables susceptible to damage protected with steel conduit/trunking. Bushing and rubber grommet, where necessary, provided.	
(iii)	Conductor sized to suit the rating of the fuse/MCB protecting the circuit.	
(iv)	No cable joint in final circuit.	
(v)	All joints of metal conduits or trunking to be mechanically sound, electrically continuous and protected against corrosion.	
(vi)	For temporary installation, cables lying on the ground or attached to scaffoldings secured on suitable supports.	
(vii)	Insulation resistance of not less than 1 Mohm measured between phases/ neutral/earth.	
(viii)	All metal conduits, trunking, switch boxes and exposed metal parts effectively earthed.	

		Tested by/Date (N/A if not applicable)
(ix)	Residual current devices function properly.	
(x)	Earth fault loop impedance and polarities of every outlet checked.	

(j) Motors

(i)	No visible damage to impair safety.	
(ii)	Insulation resistance of not less than 1 Mohm measured between phases/ neutral/earth.	
(iii)	All exposed conductive parts effectively earthed.	

(k) Earthing

(i)	No visible damage to impair safety.	
(ii)	All exposed conductive parts of the wiring installation connected to the earthing terminal with appropriate protective conductor.	
(iii)	Bonding/earthing connection to water pipe/ gas pipe/duct effectively connected.	

(The following item(s) under this section shall be included for low voltage installations which was connected to supply after 1st Jan 1985)

(iv)	A warning notice 'SAFETY *EARTH/ ELECTRICAL CONNECT DO NOT REMOVE' and ' 安全接地終端 —— 切勿移去 ' provided at all main earthing terminal and main bonding connections.	

		Tested by/Date (N/A if not applicable)
(v)	Main equipotential bonding conductors effectively connected to main water pipes, main gas pipes, other services pipes/ducting and exposed metallic parts of structural framework.	
(vi)	Supplementary equipotential bonding effectively provided between exposed conductive parts and extraneous conductive parts.	
(vii)	Exposed conductive parts of fixed equipment installed outside equipotential zone effectively earthed for the required disconnection.	
(viii)	Exposed conductive parts of fixed equipment installed within equipotential zone effectively earthed for the required disconnection.	
(ix)	Effectiveness of the main equipotential bonding connection to the main earthing terminal.	
(x)	Effectiveness of the main equipotential bonding connection to the lightning protection system.	
(l) Neon Sign		
(i)	No visible damage to impair safety.	
(ii)	The fireman's switch clearly labelled.	

		Tested by/Date (N/A if not applicable)
(iii)	All high voltage equipment enclosed in an earthed metal box fitted with a 'DANGER' and ' 危 險 ' warning notice.	
(iv)	All live parts screened with an insulation plate or earthed metal.	
(v)	High voltage cables securely supported with glass or glazed porcelain.	
(vi)	Insulation resistance of the LV circuit being ____Mohms (not less than 1 Mohm) between phases/ neutral/earth.	
(vii)	All exposed metalwork permanently and effectively bonded and earthed with a maximum earth fault loop impedance of _____ohms measured at LV side.	

(m) Swimming Pool Installations

(i)	No visible damage to impair safety.	
(ii)	Each underwater lighting in Zone 0 is protected by SELV at a nominal voltage not exceeding 12V AC r.m.s. or 30V ripple-free DC in compliance with Code 26M(4)(a).	
(iii)	The source for SELV (i.e. safety isolating transformer) is installed outside Zones 0, 1 and 2 in compliance with Code 26M(4)(a).	

		Tested by/Date (N/A if not applicable)
(iv)	Safety isolating transformer conforming to IEC 61558-2-6 or equivalent is installed in compliance with Code 5A(b)(i).	
(v)	Circuit protective conductor connected to metallic enclosure(s) enclosing the safety isolating transformer is connected to earth.	
(vi)	No earth connection between the primary and secondary sides of the safety isolating transformer is made.	
(vii)	The earthing conductor of each underwater lighting, if any, shall not be connected to the primary side of the safety isolating transformer.	
(viii)	Exposed conductive parts of the SELV circuits shall not be connected to earth, or to protective conductor or exposed conductive parts of another circuit.	
(ix)	The lowest insulation resistance measured between the primary and secondary sides of the safety isolating transformer is ___Mohms (not less than 1 Mohm).	
(x)	The supply circuit of safety isolating transformer is protected by an RCD having a rated residual operating current not exceeding 30mA.	
(xi)	The swimming pool electrical installations are in compliance with Code 26M.	

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

(n) Fountain Installations

(i) No visible damage to impair safety. _____

(ii) One or more of the protective measures employed (i.e. SELV is used as a supply source, the supply source is protected by an RCD or the supply source for electrical separation supplies only one item of current using equipment) is/are in compliance with Code 26M(6)(a). _____

(iii) If SELV is employed, each underwater lighting in Zone 0 is protected by SELV at a nominal voltage not exceeding 50V AC r.m.s. or 120V ripple-free DC. _____

(iv) If SELV is employed, the source for SELV (i.e safety isolating transformer) is installed outside Zones 0 and 1 in compliance with Code 26M(6)(a)(i). _____

(v) If SELV is employed, safety isolating transformer conforming to IEC 61558-2-6 or equivalent is installed in compliance with Code 5A(b)(i). _____

(vi) If SELV is employed, circuit protective conductor connected to metallic enclosure(s) enclosing the safety isolating transformer is connected to earth. _____

		Tested by/Date (N/A if not applicable)
(vii)	If SELV is employed, no earth connection between the primary and secondary sides of the safety isolating transformer is made.	
(viii)	If SELV is employed, the earthing conductor of each underwater lighting, if any, shall not be connected to the primary side of the safety isolating transformer.	
(ix)	If SELV is employed, exposed conductive parts of the SELV circuits shall not be connected to earth, or to protective conductor or exposed conductive parts of another circuit.	
(x)	If SELV is employed, the lowest insulation resistance measured between the primary and secondary sides of the safety isolating transformer is ___Mohms (not less than 1 Mohm).	
(xi)	The fountain electrical installations are in compliance with Code 26M.	

(o) Charging Facilities for Electric Vehicles

(i)	No visible damage to impair safety.	
(ii)	The EV charging installations are certified by the recognised national/ international organisations or relevant testing and certification authorities complying with relevant safety standards such as IEC 61851 or equivalent.	

		Tested by/Date (N/A if not applicable)
(iii)	The EV charging installations designed for outdoor use complied with IEC 60529 with a degree of protection of at least IP44.	
(iv)	All exposed conductive parts effectively earthed.	
(v)	AFDDs provided for final circuits of EV charging facilities in Mode 1, Mode 2 and Mode 3 charging not exceeding 32A single phase (with rated power up to 7kW approximately) in compliance with Code 6B(f).	
(vi)	EV charging facilities installed in public area and car park with a minimum impact severity of AG3 or a minimum degree of protection against external mechanical impact of IK08.	
(vii)	Fault protection device of each charging point checked in compliance with Code 26S(4)(d) and functioned properly.	
(viii)	Insulation resistance of not less than 1 Mohm measured between phases/ neutral/earth.	
(ix)	The charging facilities for electric vehicles are in compliance with Code 26S.	

*Delete whichever is inapplicable

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.