

What's New June 2014

Contents:

Section 1.	SUMMARY
Section 2.	DETAIL OF WORK SECTION UPDATES & AUDITS
Section 3.	SCHEDULES
Section 4	DETAIL CHANGES TO REFERENCE DOCUMENTS

A full record of the content revisions can be obtained within the report that is produced when you run the update routine on your user specifications.

Detailed PDF Guidance documents can now be found by clicking on the 'Sustainability' or 'Technical Design Guides' icons in the 'Guidance' toolbar.

Unless stated otherwise, section or clause guidance is accessed via the right hand window.

Section 1	Summary
Detailed Technical guidance	<ul style="list-style-type: none"> ➤ New guidance covering: <ul style="list-style-type: none"> ○ Chiller testing, refrigerants, F-Gases / leak detection, IOR codes of practice and evaporative cooling (T60). ○ New technical design guide to HV and LV earthing and bonding (W56) and clause guidance for HV/LV earthing (W51). ○ Electric trace heating (Y24, S12, T69, T32). ○ Water treatment of closed heating/cooling systems ref BSRIA BG50/2013 (Y25, T32, T69). ○ Pre-insulated underground pipelines (Y10 T32, T69). ○ Fire and smoke dampers (Y30, U39, U19, T41). ○ Factory built and custom built solar heating systems (T15). ○ Fume cupboard types (U15). <p>See section 2 for details</p>
Work section updates (key points)	<ul style="list-style-type: none"> ➤ T60 clauses and guidance significantly enhanced including additional options for central plant (e.g. free cooling chillers, simultaneous heating/cooling units, hybrid adiabatic coolers and 'Turbocor' type chillers). ➤ Addition of new section W56 HV Earthing and Bonding with significantly enhanced clauses and content within the newly titled W51 LV Earthing and Bonding, EMC Measures and Surge Protection. ➤ Clauses, schedule and guidance added for pre-insulated underground pipelines (Part 2, Y10, T32, T69). ➤ Clauses added for onsite testing and commissioning of fume cupboards (U15). ➤ Fire damper and smoke control damper clauses modified to include appropriate standards (Part 2, Y30, U39, U19, T41). ➤ Pump and circulator clauses updated with ecodesign requirements associated with EC Regulations (Part 2, Y20, B20, S12, T32, T69). ➤ Water treatment of closed heating and cooling systems clauses and guidance amended to reflect new standards/practices (Part 2, Y25, T32, T69). ➤ Clauses updated to better reflect trace heating of HWS (Part 2, Y24, S12, T32, T69). ➤ 10 new schedules created in-line with industry feedback and audits. <p>See section 2 for further details and section 3 for schedules</p>
Standards and Regulations updates (only significant standards listed here)	<ul style="list-style-type: none"> ➤ Some significant documents covered by the update include: <ul style="list-style-type: none"> ○ Part L 2013. ○ HSG274 Part 1 and the 4th edition of ACOP L8:2013. ○ BSRIA BG 50/2013 and European BPR 528/2012. ○ EC Regulation amendment 622/2012. ○ B&ES DW 145 and ASFP Grey Book, volume 1. <p>See section 4 for details of all changes to British Standards and other reference documents</p>

What's New June 2014

Section 2

Detail of work section updates and audits

Central Refrigeration Plant – T60

- New schedules for:
 - T60 – Air cooled chillers.
 - T60 – Water cooled chillers.
 - T60 – Dry air coolers.
 - T60 – Hybrid dry adiabatic evaporative coolers.
 - T60 – Cooling towers.
 - T60 – Chilled water storage vessels.
- The following additions have been made to options for central plant:
 - Magnetic bearing ('Turbocor') type chillers (new clause).
 - Simultaneous heating/cooling 4-pipe heat pump/chiller (new clause).
 - Free cooling type air cooled chillers (new clause).
 - Heat recovery type chillers added (desuperheater and recuperator type) – clause option on screw and scroll type air cooled chiller clauses.
 - Hybrid dry adiabatic evaporative coolers (new clause - types included: spray nozzle, spray onto mesh and trickle onto media types with once through and water recirculation options).
 - Mesh/spray type adiabatic cooling system add-on for air cooled plant (new clause).
 - Plume abatement type cooling towers – option on existing clauses.
 - Types of closed circuit cooling towers added to existing clause.
 - Hydronic kit option (buffer tank, circulation pump and pressurisation unit) for packaged air cooled chillers – option on existing clauses.
 - Ammonia type air cooled chillers (new clauses).
- Clauses added for Installation roles and responsibilities, site performance testing and commissioning, and Refrigerant leak detection.
- Additional regulation requirements added and references the Institute of Refrigeration (IOR) and British Refrigeration Association (BRA) Codes of Practice added to various clauses.
- Section guidance amended regarding refrigerants and Part L 2013.
- Existing clauses significantly amended.

LV and HV Earthing and Bonding – W51 and W56

- New Technical Design Guide, LV and HV Earthing and Bonding briefly describes the design flow process of earthing design for both LV and HV systems.
- Section W51 has been renamed LV Earthing and Bonding, EMC Measures and Surge Protection, with clause content enhanced. The section guidance for Section W51 is now expanded to provide more information.
- New section W56 HV Earthing and Bonding refers to key standards such as BS EN 50522:2010, BS EN 61936-1:2010 and BS 7430 to aid safe design for HV earthing and bonding systems. The new section is accompanied with section guidance.

Pre-insulated Pipework – Y10, T32 and T69

- New Part 2 clause 210.062 and new Y clauses Y10 2880 and 2882 added to cover bonded steel and flexible metal, plastic and multi-layer pipes systems.
- New clauses added to self-contained specifications T32 (Low Temperature Hot Water Heating) and T69 (Chilled Water) for pre-Insulated underground pipelines.
- New schedule Y10 – Pre-insulated pipework added.

What's New June 2014

Section 2

Detail of work section updates and audits

Fume Cupboards – U15

- New clauses 310.020 and 310.022 added for onsite testing and commissioning of fume cupboards
- Guidance on fume cupboard types as BS EN 14175 added to various clauses.

Ductwork Regulating and Fire Dampers – Y30, U39, U19 and T41

- Aerodynamic testing standard BS EN 1751 for dampers added to various clauses.
- Fire damper and smoke control damper clauses modified to include appropriate standards, including BS EN 15650, BS ISO 10294-4, B&ES DW 145.
- Guidance regarding B&ES DW 145 and ASFP Grey Book, volume 1, on fire dampers added to various clauses.

Glandless Circulators – Y20, Y22, B20, T31 and T69

- Content added to clauses regarding ecodesign requirements associated with EC Regulation 641/2009 and amendment 622/2012 for glandless circulators and EC Regulation 547/2012 on glanded centrifugal water pumps.
- Relevant parts of BS EN 16297 added to clauses for calculating the energy efficiency index (EEI) of both stand-alone circulators and circulators integrated into products such as boilers and heat interface units.
- Clauses in self-contained specifications aligned with pump clauses in Y20.

Water Treatment of Closed Heating and Cooling Systems – Y25, T31 and T69

- New guidance on BSRIA BG50/2013 “Water Treatment for Closed Heating and Cooling Systems” added to section guidance and various clauses.
- Guidance added to Y25 2050 clauses regarding fill water pre-treatment.
- Various Y25 reference clauses amended to reflect new BSRIA BG50 and European Biocidal Products Regulation 528/2012 (BPR).
- Guidance added to clause Y25 2050 on the need for fill water pre-treatment in closed systems.
- New part 2 clause 225.065 added for corrosion coupon racks.
- References to HSG 274 Part 1- The control of legionella bacteria in evaporative cooling, added to various clauses.

Trace Heating – Y24, S12, T32 and T69

- Various Part 2 clauses and Y reference clauses generally updated to reflect standards BS EN 62395, BS EN 60519 and BS EN 60079.
- Clauses updated to better reflect trace heating of HWS for temperature maintenance and thermal disinfection and control requirements.
- New schedule Y24-Trace heating added.

Solar Collectors – T15

- Clauses and guidance updated to reflect current standards including BS EN 12976, BS EN 12977:2012 and BS EN ISO 9806:2013 to enable either a ‘factory made’ or ‘custom built’ solar heating system to be specified.

HV/LV cables and wiring – Y61

- Two new schedules added to clause 261.010. Cable schedule ‘Y61-Cables technical details by application’ is for specifying the required cable type for each application, ‘Y61-Main and Sub-main cables design data’ is where all circuit details, cable design/size data, routing and other information should be specified.

What's New June 2014

Section 3

Schedules

Below is a summary of the new schedules that can be activated by clicking on the links from NES clauses. Some guidance has been incorporated into many of the schedules in the form of “comments” that are displayed when hovering over certain cells.

Legend	Form	Front sheet Landscape, secondary sheets Portrait (L/P)	Type	
		Landscape single sheet (L)	New	N
		Portrait (P)	Enhanced / Updated	U

Section	Schedule Name	Form	Type	Notes
T60	Air cooled chillers	P	N	Could be used for the following types: <ul style="list-style-type: none"> Air cooled external. Air cooled ducted internal. Free cooling. Heat recovery (with desuperheater or recuperator). DX with remote air cooled condenser.
T60	Water cooled chillers	P	N	Could be used for the following types: <ul style="list-style-type: none"> Scroll. Screw. Magnetic bearing ('Turbocor'). Reciprocating or centrifugal types.
T60	Chilled water storage vessels	P	N	Covers either: <ul style="list-style-type: none"> Buffer vessel to minimise compressor starts or Thermal storage vessel.
T60	Cooling towers	P	N	Covers either: <ul style="list-style-type: none"> Open circuit type or Closed circuit type with both plate heat exchanger and tower spray pumps mounted on skid adjacent the tower or with heat exchanger internal to tower and tower spray pumps mounted on skid adjacent the tower.
T60	Dry air coolers	P	N	Use for horizontal coil or V-shape or W-shape coil types.
T60	Hybrid dry adiabatic evaporative coolers	P	N	Could be used for: <ul style="list-style-type: none"> Dry cooler with spray nozzles. Dry cooler with deluge onto distribution channels to wet the heat exchanger (water recirculation type). Dry cooler with trickle onto media (once through type). Dry cooler with trickle onto media (water recirculation type).
Y10	Pre-insulated pipework	P	N	Covers either: <ul style="list-style-type: none"> Bonded steel or Bonded flexible plastic or

What's New June 2014

Section 3

Schedules

				<ul style="list-style-type: none"> Bonded flexible metal or Non-bonded flexible plastic systems.
Y24	Trace heating	L	N	Enables all pipework trace heating to be specified in one place including power supplies, BMS interfaces etc.
Y61	Cables technical details by application	L	N	Enables the designer to specify the cable type for each application (example included within the schedule).
Y61	Main and Sub-main cables design data	L	N	Circuit details/routing, cable design/sizing data etc. (example included within the schedule).

What's New June 2014

Section 4

Detail changes to reference documents

Work Section	Reference document - Current	Status of current reference	Reference document - New
B20	BS 5499-4:2000 Safety signs, including fire safety signs. Code of practice for escape route signing	Withdrawn and superseded	BS 5499-4:2013 Safety signs. Code of practice for escape route signing
B20	BS EN 50083-8:2002 Cable networks for television signals, sound signals and interactive services. Electromagnetic compatibility for networks	Withdrawn and superseded	BS EN 50083-8:2013 Cable networks for television signals, sound signals and interactive services. Electromagnetic compatibility for networks
B20	BS EN 60081:1998+A4:2010 Double-capped fluorescent lamps. Performance specifications	Amendment 5	BS EN 60081:1998+A5:2013 Double-capped fluorescent lamps. Performance specifications
B20	BS EN 60927:2007 Auxiliaries for lamps. Starting devices (other than glow starters). Performance requirements	Amendment 1	BS EN 60927:2007+A1:2013 Auxiliaries for lamps. Starting devices (other than glow starters). Performance requirements
B20	BS EN 161:2011+A2:2012 Automatic shut-off valves for gas burners and gas appliances	Amendment 3	BS EN 161:2011+A3:2013 Automatic shut-off valves for gas burners and gas appliances
B20	BS EN 50262:1999 Cable glands for electrical installations	Withdrawn and superseded	BS EN 62444:2013 Cable glands for electrical installations
N12	BS EN 203-1:2005+A1:2008 Gas heated catering equipment. General safety rules	Withdrawn and superseded	BS EN 203-1:2014 Gas heated catering equipment. General safety rules
R12	BS EN ISO 11297-3:2013 Plastics piping systems for renovation of underground drainage and sewerage networks under pressure. Lining with close-fit pipes	Corrigendum 1	
S17	BS 8515:2009 Rainwater harvesting systems. Code of practice	Amendment 1	BS 8515:2009+A1:2013 Rainwater harvesting systems. Code of practice
S21	CIBSE Guide G – Public Health Engineering 2 nd Edition	Superseded	CIBSE Guide G Public Health and Plumbing Engineering 3 rd Edition (February 2014)
S30	PD 5500:2012+A2:2013 Specification for unfired fusion welded pressure vessels	Corrigendum 1	

What's New June 2014

Section 4		Detail changes to reference documents	
S33	BS EN 14129:2004 Pressure relief valves for LPG tanks	Withdrawn and superseded	BS EN 14129:2014 LPG Equipment and accessories. Pressure relief valves for LPG pressure vessels
T15	BS EN 12975-2:2006 Thermal solar systems and components. Solar collectors. Test methods	Withdrawn and superseded	BS EN ISO 9806:2013 Solar energy. Solar thermal collectors. Test methods
T19	BS EN 10216-2:2002 Seamless steel tubes for pressure purposes. Technical delivery conditions. Non-alloy and alloy steel tubes with specified elevated temperature properties	Withdrawn and superseded	BS EN 10216-2:2013 Seamless steel tubes for pressure purposes. Technical delivery conditions. Non-alloy and alloy steel tubes with specified elevated temperature properties
T50	BS EN 10216-5:2004 Seamless steel tubes for pressure purposes. Technical delivery conditions. Stainless steel tubes	Withdrawn and superseded	BS EN 10216-5:2013 Seamless steel tubes for pressure purposes. Technical delivery conditions. Stainless steel tubes
T60	BS EN 10216-1:2002 Seamless steel tubes for pressure purposes. Technical delivery conditions	Withdrawn and superseded	BS EN 10216-1:2013 Seamless steel tubes for pressure purposes. Technical delivery conditions. Non-alloy steel tubes with specified room temperature properties
U15	BS EN 14175-2:2003 Fume cupboards. Safety and performance requirements	Corrigendum 1	
V10	BS EN 61427:2005 Secondary cells and batteries for photovoltaic energy systems (PVES). General requirements and methods of test	Withdrawn and superseded	BS EN 61427-1:2013 Secondary cells and batteries for renewable energy storage. General requirements and methods of test. Photovoltaic off-grid application
V11	BS EN 60076-2:1997 Power transformers. Temperature rise	Withdrawn and superseded	BS EN 60076-2:2011 Power transformers. Temperature rise for liquid-immersed transformers
V21	BRE Digest Selecting lighting controls (DG 498 2006)	Revised	BRE Digest Selecting lighting controls (DG 498 2014)
V22	BS EN 60601-1:2006 Medical electrical equipment. General requirements for basic safety and essential performance	Amendment 1	BS EN 60601-1:2006+A1:2013 Medical electrical equipment. General requirements for basic safety and essential performance
W40	BS EN 50133-1:1997 Alarm systems. Access control systems for use in security applications. System requirements	Withdrawn and superseded	BS EN 60839-11-1:2013 Alarm and electronic security systems. Electronic access control systems. System and components requirements
W60	BS EN 60584-1:1993 Thermocouples. Reference tables	Withdrawn and superseded	BS EN 60584-1:2013 Withdrawn and superseded

What's New June 2014

Section 4

Detail changes to reference documents

Y10	BS EN 10216-3:2002 Seamless steel tubes for pressure purposes. Technical delivery conditions. Alloy fine grain steel tubes	Withdrawn and superseded	BS EN 10216-3:2013 Seamless steel tubes for pressure purposes. Technical delivery conditions. Alloy fine grain steel tubes
Y10	BS EN 10216-4:2002 Seamless steel tubes for pressure purposes. Technical delivery conditions	Withdrawn and superseded	BS EN 10216-4:2013 Seamless steel tubes for pressure purposes. Technical delivery conditions. Non-alloy and alloy steel tubes with specified low temperature properties
Y24	BS EN 62395-1:2006 Electrical resistance trace heating systems for industrial and commercial applications. General and testing requirements	Withdrawn and superseded	BS EN 62395-1:2013 Electrical resistance trace heating systems for industrial and commercial applications. General and testing requirements
Y24	DD CLC/TS 62395-2:2010 Electrical resistance trace heating systems for industrial and commercial applications. Application guide for system design, installation and maintenance	Withdrawn and superseded	Electrical resistance trace heating systems for industrial and commercial applications. Application guide for system design, installation and maintenance
Y30	BS EN 1751:1999 Ventilation for buildings. Air terminal devices. Aerodynamic testing of dampers and valves	Withdrawn and superseded	BS EN 1751:2014 Ventilation for buildings. Air terminal devices. Aerodynamic testing of damper and valves
Y61	BS EN 61754-4:2013 Fibre optic interconnecting devices and passive components. Fibre optic connector interfaces. Type SC connector family	Corrigendum 1	
Y61	BS EN 50363-2-1:2005 Insulating, sheathing and covering materials for low voltage energy cables. Cross-linked elastomeric sheathing compounds	Amendment 1	BS EN 50363-2-1:2005+A1:2011 Insulating, sheathing and covering materials for low voltage energy cables. Cross-linked elastomeric sheathing compounds
Z Part 2	BS EN 1329-1:2000 Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure. Unplasticized poly(vinyl chloride) (PVC-U). Specifications for pipes, fittings and the system	Withdrawn and superseded	BS EN 1329-1:2014 Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure. Unplasticized poly(vinyl chloride) (PVC-U). Specifications for pipes, fittings and the system
Z Part 2	BS ISO 16422:2006 Pipes and joints made of oriented unplasticized poly(vinyl chloride) (PVC-O) for the conveyance of water under pressure. Specifications	Withdrawn and superseded	Pipes and joints made of oriented unplasticized poly(vinyl chloride) (PVC-O) for the conveyance of water under pressure. Specifications