

What's New June 2018

Contents

Content Common to CAWS and BG 56 Based Specifications

- Section 1. Summary
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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 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.

Content Common to CAWS and BG 56 Based Specifications

Section 1	Summary
Detailed Technical Guidance	<p>New or enhanced existing guidance:</p> <ul style="list-style-type: none"> • Two new electrical sample specifications, CAWS format and BG 56 format, are now provided (in PDF format) • Structured cabling system guidance updated to reflect currently used system performance classifications <p style="text-align: right;"><i>See Section 2 for details</i></p>
Work Section Updates	<p>Key points:</p> <ul style="list-style-type: none"> • New Electrical Vehicle Charging Equipment Installations section added • Section for Combined Heat and Power Systems audited and enhanced in line with current standards and industry best practices • Electrical Part 2 clause enhanced to permit specification of socket outlets with USB charging outlets • Solar Collectors section renamed "Solar Hot Water Systems", pressurisation unit clause title changed to "Membrane Expansion Vessel" and clause for Intermediate Auxiliary Vessels added • Sections for chillers and air conditioning plant and other plant, enhanced to reflect EU Ecodesign Regulation 2016/2281 and BS EN 14825 for seasonal energy efficiency • Clauses for plastic pipework enhanced and reorganised • Pipework fire sleeves clauses updated and enhanced • Steam trap clauses updated, plus addition of general standards for valve testing • Boiler Plus and Domestic Building Services Compliance Guide (2018) requirements added and gas burner control standards in numerous clauses rationalised <p style="text-align: right;"><i>See Section 2 for further details and Section 3 for details of schedules</i></p>
Standards and Regulations Updates (only significant standards listed here)	<p>Some significant documents covered by the update include:</p> <ul style="list-style-type: none"> • IET Code of Practice for Electrical Vehicle Charging Equipment Installation • Schedules Water Cooled Chillers and Air Cooled Chillers updated in line with EU 2016/2281 and Ecodesign Regulations <p>Some significant standards covered by the update include:</p> <ul style="list-style-type: none"> • BS EN 14825 - AC plant part load conditions seasonal performance • BS EN 16905 - Gas fired engine driven heat pumps • BS EN 61851 - Electric vehicle conductive charging system <p style="text-align: right;"><i>See Section 4 for details of all changes to reference documents</i></p>

Content Common to CAWS and BG 56 Based Specifications

Section 2 Details of Work Section Updates & Audits

Refer to separate 'CAWS - BG 56 NES Master Content Reference Document' for details of the corresponding BG 56 part/section to the following CAWS section references.

Description of the Works and Common Design Criteria - A13

Clause 300.000 for explosive atmospheres has been updated to include requirements to undertake a hazard and operability (HAZOP) study, or refer to an existing HAZOP study.

Management of the Works - A32

In Clause 130.000, programme information requirements and the delivered format has been clarified.

Quality Standards / Control - A33

Updated to reflect the fact that BS 8300 has been replaced by BS 8300-1 and BS 8300-2.

General Conditions - (Self-contained Specification) A64

- In Clause 410.080, programme information requirements and the delivered format has been clarified.
- In Clause 410.110, a statement has been added, to the effect that no undertaking is given that the works will be able to proceed in a sequential nature.
- Clause 800.020 has been updated to correct an issue with an editable user field.
- Clause 900.100 has been updated to amend the last clause, which was incomplete.
- Clause 710.050 for explosive atmospheres has been updated to include requirements to undertake a hazard and operability (HAZOP) study, or refer to an existing HAZOP study.

Residential Projects - B20

- Clause 600.209 updated to include more detail on mechanical supply and exhaust units with heat recovery and multifunctional balanced ventilation units to BS EN 16573 added.
- Clause 100.732 for electromagnetic compatibility has been updated to fully align with A13 Clause 270.000 and A64 Clause 710.130, thus addressing a number of superseded and withdrawn standards referenced in this clause.

Drainage Sections Rainwater Pipework / Gutters - R10 (Rainwater), R11 (Above Ground), R12 (Below Ground) & R19 (Self-contained Section Above Ground/Rainwater)

- PVC-U to BS EN 12200-1 added to R10:300.040 for external rainwater piping system.
- Gully with light liquid closure to BS EN 1253-5 added to R11:300.020 and R12:330.020.
- Clause R19:300.010 title changed to include "Gullies", various gully types to BS EN 1253-5 added.

Hot Water - S11 & S12

Clause content in S11:300.020 and S12:200.030 for instantaneous water heaters aligned.

Borehole / Well Water - S16

Clause 300.070 Electromagnetic Compatibility, has been updated to remove withdrawn standards, and align fully with the requirements of A13 Clause 270.000 and A64 Clause 710.130.

Natural Gas - S32

General update of gas meter clauses 310.010 and 310.012 to more clearly describe the parts of BS 6400.

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Section 2 Details of Work Section Updates & Audits

Liquefied Petroleum Gas - S33

- Text added to 310.010 for refillable cylinders to BS EN 1442. Also BS EN 13322-1 option removed.
- New clause 310.032 added for gas meters.

Petrol - S40 & A Sections

The Petroleum Consolidation Regulations 2014 added to clause S40:300.005 and A33:171.000 / A64 710.100.

Boilers and Gas Burner Controls T10, T32 & B20

- General update, enhancement and rationalisation of the list of gas burner control standards in all Gas boiler clauses below:
 - T10 - 310.010, 310.015, 310.020, 310.021, 310.024, 310.025 & 310.027
 - T32 - 200.010, 200.014, 200.016, 200.018 & 200.020
 - B20:400.203
- The following clauses have been amended / enhanced to reflect 2018 amendments to the Domestic Building Services Compliance Guide / Boiler Plus standards (2018):
 - T10:300.020 & 300.022
 - T32:200.001
 - B20:400.203

Solid Fuel Boilers - T11 & T16

- Standards for boilers and grate firing systems for solid fuels from fuel bunker to ash extraction plant updated in various clauses (reference BS EN 12953-12).
- Pressurisation unit clauses aligned with same product in T10.
- Clause 320.030 deleted as CP 3000 withdrawn.

Chillers, Heat Pumps and AC Plant - T14, T60, T62, T69, U39, U41, U60 & U70

- The clauses listed below for main plant have been enhanced to reflect EU Ecodesign Regulation 2016/2281 and BS EN 14825 for seasonal energy efficiency. The clauses now enable the following to be specified:
 - EER at part load for calculation of SEER to EU 2016/2281 and BS EN 14825
 - Minimum SEER for Ecodesign Regulations Compliance
 - Minimum SSCEE (Seasonal Space Cooling Energy Efficiency)
 - T60 - 310.010, 310.015, 310.020, 310.022, 310.023, 310.025, 310.030, 310.047, 310.048 310.050, 310.052 & 310.054
 - T62:300.016
 - T69 - 200.010, 200.020 & 200.025
 - T70:300.016
- Small gas fired units to BS EN 12309 added to clauses T60:310.040 and 310.045 for absorption units.
- Clauses T14:300.004 / T60:300.070 / T69:200.009 for equipment updated and aligned with regard to EPR and EU Regulations (on Ecodesign), plus IE2 / IE3 motor notes amended.
- In T14 clauses 300.094 and 300.096 for air source and water source Gas Engine driven heat pumps added (up to 70kW) reference BS EN 16905.
- In T62 clause 300.062 added for gas engine driven type external unit for VRF systems to BS EN 16905.
- New clauses for Ecodesign requirements for air conditioners added to U39:300.005.
- Clauses U60:300.015 and T70:300.017 updated for Ecodesign requirements for air conditioners.
- Clause U41:300.015 added for Ecodesign requirements of fan coil units (product information to EU Regulation 2016/2281).

Content Common to CAWS and BG 56 Based Specifications

Section 2 Details of Work Section Updates & Audits

Solar Hot Water Systems - T15

- Section name changed to "Solar Hot Water Systems" to align with terminology in BG 56 version.
- In BG 56 version, section numbers changed to locate the sections with the other "Water Services" sections rather than with the "Heating, Ventilation, Cooling and Air Conditioning" sections.
- Title of clause 310.070 changed from "Pressurisation Plant" to "Membrane Expansion Vessel" and content of clause completely rewritten.
- New clause 310.072 added for "Intermediate Auxiliary Vessel" (for use in some systems before the expansion vessel to limit the system fluid temperature at the inlet to the expansion vessel).
- 320.050 clause title changed to "Expansion Vessels and Auxiliary Vessels Installation". Clause text rewritten to remove references to BS 7074.

Combined Heat and Power Systems - T19

- Work section checked against current standards and practices.
- New Clauses have been included to better facilitate integration, control and monitoring and manage software for the same, as follows: 300.050, 300.060 & 320.100.
- Clauses 300.001 to 300.005 have been revised to standardise the approach to specifying legislation.
- Clauses 300.007, 300.010 and 300.040 have minor updates to ENA Engineering Recommendation references.
- In Clause 300.008, reference to the Renewable Heat Incentive Regulations is updated to the 2017 Regulations.
- Requirements for electromagnetic disturbances have been removed from Clauses 310.010 as these are now addressed by wording amendments to Clause 300.005.
- In Clause 310.030, alignment of pressure test and commissioning of gas infrastructure requirements with S32.
- Standards for fuel filters have been updated in Clause 310.050, as BS 4552-2 and BS 4552-3 were superseded by BS ISO 7654 in 2017.
- Integration and metering options in Clause 310.090 have been revised.
- Clauses 320.040, 320.050, 320.060, 320.070 and 320.080 have been combined into 320.040.
- Clause 320.050 has been re-titled "SYSTEM COMMISSIONING" and includes new requirements for overall system commissioning.
- Clause 320.060 has been re-titled "QUALITY CONTROL" and contains requirements for quality control.
- Clause 320.070 for actions required for handover added.

Warm Air Heating and Local Heating Units - T40, T41, T42 & V51

New clause added in each section for Ecodesign requirements / ERP Regulations.

Cold Rooms - T71

BS EN 16855-1 for thermal insulation performance of cold rooms supplied to site as pre-fabricated walk-in kits added to 306.010.

Car Park Ventilation - U13 & B20

- Minor amendments / corrections to U13:310.005, 310.006, 310.010 & 310.040.
- 600.3XX series of clauses in Self-contained Section B20 aligned with U13 as below:
 - Text from U13:100.010 added to 600.001
 - New clauses for "Specialist", "Electricity Supply", "Design", "Impulse Jet Car Park Ventilation Fans", "Ductwork System", car park ventilation fire control unit and "Installation" added (copies of U13 - 300.001, 300.010, 300.015, 310.010, 310.015, 310.020 & 320.010)
 - 600.302 renumbered as 600.305, with text now same as U13:310.005 and 600.303 renumbered as 600.306

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Section 2 Details of Work Section Updates & Audits

Smoke and Heat Control - U14

Types of natural smoke and heat exhaust ventilators added to 310.30 and 310.040 as defined in 2017 version of BS EN 12101-2.

Ventilation and Air Conditioning - U19 & U39 (Self-contained Sections)

New clauses U19:200.004 and U39:200.004 added for "Fans General Requirements". These are based on existing Reference Clause Y41.1000.

Air Conditioning Units - U60

New clauses 300.003 and 300.004 added for safety standards and regulations / equipment for refrigeration plant. These clauses are based on similar clauses in Work Section T14 for heat pumps and list key standards for compressors, condensers motors, etc.

Electric Vehicle Charging Equipment Installations - V34 (New Work Section)

Addition of new Work Section providing for the specification of electric vehicle charging installations. Requirements are included for 'wired' charging points according to the BS EN 61851 series of standards, along with BS 7671 and the IET Code of Practice for Electric Vehicle Charging Installations, for dwellings, public/on-street applications, commercial and industrial applications, and those within the curtilage of fuel filling stations.

Staff Paging / Location - W11

The Clause 300.020 has been updated to replace BS EN 41003 with BS EN 62949. BS EN 41003 has been withdrawn, and superseded by BS EN 62949.

Security Detection and Alarm - W41

The title of Clause 300.100 has changed to "Acoustic and Breaking Glass Detectors", and includes requirements for active and passive breaking glass detectors, in addition to acoustic, in accordance with BS EN 50131-2-7-1, BS EN 50131-2-7-2 and BS EN 50131-2-7-3.

Central Control / BMS - W60

- Reference to relevant parts of BS EN 60079 added to 310.546 for gas detectors for flammable gases and oxygen.
- Reference to BS EN 60730 for automatic control components added to clause 300.010 System Requirements.

Structured Cabling System - W70

Clause 100.030 has been updated to reflect currently used system performance classifications. Clause Guidance has been updated to outline the classifications.

Automatic Document Filing and Retrieval - X32

Clause 300.030 Electromagnetic Compatibility, has been updated to remove withdrawn standards, and align fully with the requirements of A13 Clause 270.000 and A64 Clause 710.130.

Pipelines and Pipework - Y10

- Part 2 clause 210.015 Sanitary Fittings, deleted (use N13 if these are to be specified).
- General reorganisation of Part 2 Clause 210.050 Plastic Pipes and Fittings including removal of strike through parts of clause, removal of a number of Y10# clauses for plastic pipes / fittings and clauses designated "A" renumbered. Sections added to 210.050 for plastic rainwater piping systems and plastic pipes for industrial applications.
- Reference Clause Y10.2540 for PP pipe to BS EN 1451-1 deleted as this is duplicated by Y10.2545A and #.

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Section 2 Details of Work Section Updates & Audits

- BS ISO 9349 for pre-insulated cast iron pipes for water / waste water applications added to 210.040. Standards for flexible joints also added for these types of pipe.

Pipework Fire Stopping - Y10, T32, T69 & B20

- Reference Clause Y10.4125# deleted.
- In Part 2 Clause 210.080, references to pipework penetrating fire separating elements added in compliance with Building Regulations, BS 9999 and BESA Technical Bulletin TB/032.
- In Y10.4125, BS EN 1366-3 added as alternative to BS 476 for proprietary fire sleeves.
- The following new clauses are added to the self-contained sections for pipes passing through fire barriers:
 - B20:1000.209A
 - S12:700.085
 - T32:600.085
 - T69:400.075

Pipeline Ancillaries - Y11 & Self-contained Sections T32 / T69

- Text added to Part 2 Clause 211.260 including references to standards for flexible hose assemblies, for connecting to drinking water and standard for connecting electrical appliances to water mains to prevent backsiphonage of non-potable water.
- Editable Reference Clause Y11.2530# for steam traps and accessories deleted and content moved to Part 2 Clause 211.250.
- Part 2 Clause 211.250 has also been enhanced to include standards applicable to steam trap marking and performance including steam losses and discharge capacity. A section has been added where steam trap monitoring facilities can be specified. Standard for rubber hoses and hose assemblies for saturated steam also added to 211.250.
- Standard added for valve dimensions to general clause 211.010.
- General type testing standards BS EN 12266, BS ISO 5208 and BS ISO 9393-1 added and valve dimensional standard BS EN 558 added to general clause 211.010.
- Clauses T32:500.060 & T69:300.056 added for valves general requirements.

Fans - Y41

Withdrawn standards removed and replaced with BS ISO 21940 for rotor balancing in 2020# and 2020A.

Thermal Insulation - Y50

Standard associated with preparing environmental product declarations (EPD's) added to 1020.

LV Switchgear and Distribution Boards Y71

Clauses 2150# and 2150A have been updated to accommodate changes in standards for electricity meters. The clauses specifying standards have been rearranged, along with relevant descriptions.

Electrical Part 2 Clauses

- Update Clause 274.110 to permit the specification of socket-outlets with integral USB charging outlets, and switched and unswitched industrial socket-outlets.
- Clause 282.045 is deleted as this duplicates 282.055.

New Electrical Sample Specifications

In addition to mechanical sample specifications, electrical sample specifications are now provided (PDF documents) to aid users in the production of their own specifications in the following formats:

- CAWS based format
- BSRIA BG 56 based format

For access, see 'NES - Sample Specifications' under the 'Guidance' toolbar within the application.

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Section 3 Schedules

Below is a summary of the updates to schedules in Excel 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.

These supplied NES schedules:

- Are independent of classification
- Have been updated to a common formatting theme
- Are orientated as landscape for ease of publishing

For a complete listing and print preview of all NES schedules refer to document NES Building Services Schedules, located on the "Guidance" tool bar, under "Other Resources".

The list below covers significant amendments / changes to existing schedules and new schedules.

Types

U – Existing schedule that has been significantly updated

N – New schedule

Section Reference		Schedule Name	Type	Details
CAWS	BG 56			
T60, T69	C1.4.380	Water Cooled Chillers	U	Schedules enhanced to enable the following to be specified: <ul style="list-style-type: none"> • EER at part load for calculation of SEER to EU 2016/2281 and BS EN 14825 • Minimum SEER for Ecodesign Regulations Compliance • Minimum SSCEE (Seasonal Space Cooling Energy Efficiency).
T60, T69	C1.4.380	Air Cooled Chillers	U	

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Section 4 Detail Changes to Reference Documents

Work Section		Reference Document - Current	Status of Current Reference	Reference Document - New
CAWS	BG 56			
A33, A64, N13, V34, V90, V91, V92, W14, W15, W22, W40, W42, X20, Y74,	A3.4, C5.40, C2.1.160, C2.3.60, C2.3.70, C2.3.100, C2.4.10, C2.4.30, C3.2.10, D2.6.70		New Addition	BS 8300-1:2018 Design of an accessible and inclusive built environment. External environment. Code of practice BS 8300-2:2018 Design of an accessible and inclusive built environment. Buildings. Code of practice
B20, N30, P30, S40, S41, T10, T32, T40, T41, T42	C4.40, C1.3.30, C1.3.40, C1.4.30, C1.4.140, C1.4.150	BS 5410-2:2013 Code of practice for oil firing. Installations over 45 kW output capacity for space heating, hot water and steam supply services	Withdrawn, Superseded	BS 5410-2:2018 Code of practice for liquid fuel firing. Non-domestic installations
B20, S30, S31, S32, S41, S51, S53, T32, T41, U19, U39, Y10, Y11, Y20, Y44, Z Part 2	C1.5.10, C1.3.20, C1.3.10, C1.5.50, C1.5.70, D1.8.10, D1.8.20, D1.8.40, D1.4.490 C1.3.40, C1.8.10, C1.8.20, C1.8.40	BS EN 1092- 1:2007+A1:2013 Flanges and their joints. Circular flanges for pipes, valves, fittings and accessories, PN designated. Steel flanges	Withdrawn, Superseded	BS EN 1092-1:2018 Flanges and their joints. Circular flanges for pipes, valves, fittings and accessories, PN designated. Steel flanges
N11	C5.20		Amendment 1	BS 6172:2010+A1:2017 Specification for installation, servicing and maintenance of domestic gas cooking appliances (2nd and 3rd family gases). Specification
V11, Y71	C2.1.20, D2.6.50	BS 7856:2013 Code of practice for special design and other features of alternating current wathour meters for active energy (MID accuracy classes A and B) for use in the UK	Withdrawn, Superseded	BS 7856:2017 Specification for special design and other features of alternating current wathour meters for active energy for use in the UK (Accuracy Classes A and B)

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Work Section		Reference Document - Current	Status of Current Reference	Reference Document - New
CAWS	BG 56			
A13, A64, B20, P30, S16, Y60, Y61, Y72, Z Part 2	A1.4, C1.2.60, D2.6.10, D2.6.20, D2.6.60, C2.1.120		Amendment 1	BS EN 50174- 3:2013+A1:2017 Information technology. Cabling installation. Installation planning and practices outside buildings
A13, A64, B20, S33, S41, T32, U19, U39, W50, W51, Y24, Y41, Y61, Y73, Y92	A1.4, C1.3.20, C1.3.40, C2.5.10, C2.1.100, D1.8.50, D1.4.460, D2.6.20, D2.2.50, D4.30	BS EN 60079-30- 2:2007 Explosive atmospheres. Electrical resistance trace heating. Application guide for design, installation and maintenance	Withdrawn, Superseded	BS EN 60079-30-2:2017 Explosive atmospheres. Electrical resistance trace heating. Application guide for design, installation and maintenance
A13, A64	A1.4		New Addition	BS EN 61882:2016 Hazard and operability studies (HAZOP studies). Application guide
A13, A64, B20, T19, V10	A1.4, C1.4.100, C2.1.10		Amendment 1	BS ISO 5011:2014+A1:2018 Inlet air cleaning equipment for internal combustion engines and compressors. Performance testing
A13, A64, S60, S61, S62, S63, S64, S65, S70, S71, S72, S73, T19, U13, U14, V13, V14, V32, V33, V34, V35, V40, V91, V92, W10, W12, W14, W15, W20, W21, W22, W23, W30, W40, W41, W42, W50, W60, W61, W69	A1.4, C1.6.10, C1.6.20, C1.6.30, C1.6.40, C1.6.50, C1.6.60, C1.6.70, C1.6.80, C1.6.90, C1.6.100, C1.4.100, C1.4.210, C1.4.220, C2.1.40, C2.1.50, C2.1.90, C2.1.150, C2.1.160, C2.1.170,	BS ISO/IEC 12207:2008 Systems and software engineering. Software life cycle processes	Withdrawn, Superseded	BS ISO/IEC/IEEE 12207:2017 Systems and software engineering. Software life cycle processes

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Work Section		Reference Document - Current	Status of Current Reference	Reference Document - New
CAWS	BG 56			
	C2.2.20, C2.3.10, C2.3.50, C2.3.60, C2.3.70, C2.3.80, C2.3.90, C2.3.100, C2.3.110, C2.3.20, C2.4.10, C2.4.20, C2.4.30, C2.5.10, C1.7.10, C1.7.20,			
A33, A64, N13, V34, V90, V91, V92, W14, W15, W22, W40, W42, X20, Y74,	A3.4, C5.40, C2.1.160, C2.3.60, C2.3.70, C2.3.100, C2.4.10, C2.4.30, C3.2.10, D2.6.70		New Addition	BS 8300-1:2018 Design of an accessible and inclusive built environment. External environment. Code of practice BS 8300-2:2018 Design of an accessible and inclusive built environment. Buildings. Code of practice
B20, N30, P30, S40, S41, T10, T32, T40, T41, T42	C4.40, C1.3.30, C1.3.40, C1.4.30, C1.4.140, C1.4.150	BS 5410-2:2013 Code of practice for oil firing. Installations over 45 kW output capacity for space heating, hot water and steam supply services	Withdrawn, Superseded	BS 5410-2:2018 Code of practice for liquid fuel firing. Non-domestic installations
B20, S30, S31, S32, S41, S51, S53, T32, T41, U19, U39, Y10, Y11, Y20, Y44, Z Part 2	C1.5.10, C1.3.20, C1.3.10, C1.5.50, C1.5.70, D1.8.10, D1.8.20, D1.8.40, D1.4.490 C1.3.40, C1.8.10, C1.8.20, C1.8.40	BS EN 1092- 1:2007+A1:2013 Flanges and their joints. Circular flanges for pipes, valves, fittings and accessories, PN designated. Steel flanges	Withdrawn, Superseded	BS EN 1092-1:2018 Flanges and their joints. Circular flanges for pipes, valves, fittings and accessories, PN designated. Steel flanges

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Work Section		Reference Document - Current	Status of Current Reference	Reference Document - New
CAWS	BG 56			
B20, N11, U10	C5.20, C1.4.180	BS EN 13141-3:2004 Ventilation for buildings. Performance testing of components/products for residential ventilation. Range hoods for residential use	Withdrawn, Superseded	BS EN 13141-3:2017 Ventilation for buildings. Performance testing of components/products for residential ventilation. Range hoods for residential use without fan
B20, Y30, Z Part 2	D1.4.510, C1.4.510		Amendment 1	BS EN 1366- 10:2011+A1:2017 Fire resistance tests for service installations. Smoke control dampers
B20, T14, T60, T62, T69, T70, U39, U43, U50, U60, U70	C1.4.70, C1.4.380, C1.4.400, C1.4.390, C1.4.340, C1.4.350, C1.4.430	BS EN 14511-1:2013 Air conditioners, liquid chilling packages and heat pumps with electrically driven compressors for space heating and cooling. Terms, definitions and classification	Withdrawn, Superseded	BS EN 14511-1:2018 Air conditioners, liquid chilling packages and heat pumps for space heating and cooling and process chillers, with electrically driven compressors. Terms and definitions
B20, T14, T60, T62, T69, T70, U39, U43, U50, U60, U70	C1.4.70, C1.4.380, C1.4.400, C1.4.390, C1.4.340, C1.4.350, C1.4.430	BS EN 14511-2:2013 Air conditioners, liquid chilling packages and heat pumps with electrically driven compressors for space heating and cooling. Test conditions	Withdrawn, Superseded	BS EN 14511-2:2018 Air conditioners, liquid chilling packages and heat pumps for space heating and cooling and process chillers, with electrically driven compressors. Test conditions
B20, T14, T60, T62, T69, T70, U39, U43, U50, U60, U70	C1.4.70, C1.4.380, C1.4.400, C1.4.390, C1.4.340, C1.4.350, C1.4.430	BS EN 14511-3:2013 Air conditioners, liquid chilling packages and heat pumps with electrically driven compressors for space heating and cooling. Test methods	Withdrawn, Superseded	BS EN 14511-3:2018 Air conditioners, liquid chilling packages and heat pumps for space heating and cooling and process chillers, with electrically driven compressors. Test methods
B20, T14, T60, T62, T69, T70, U39, U43, U50, U60, U70	C1.4.70, C1.4.380, C1.4.400, C1.4.390, C1.4.340, C1.4.350, C1.4.430	BS EN 14511-4:2013 Air conditioners, liquid chilling packages and heat pumps with electrically driven compressors for space heating and cooling.	Withdrawn, Superseded	BS EN 14511-4:2018 Air conditioners, liquid chilling packages and heat pumps for space heating and cooling and process chillers, with electrically driven

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Work Section		Reference Document - Current	Status of Current Reference	Reference Document - New
CAWS	BG 56			
		Operating requirements, marking and instructions		compressors. Requirements
B20			New Addition	BS EN 16573:2017 Ventilation for Buildings. Performance testing of components for residential buildings. Multifunctional balanced ventilation units for single family dwellings, including heat pumps
B20, T10, T32	C1.4.30		New Addition	BS EN 16855-1:2017 Walk-in cold rooms. Definition, thermal insulation performance and test methods. Prefabricated cold room kits
B20, T10, T32	C1.4.30	BS EN 303-1:1999 Heating boilers. Heating boilers with forced draught burners. Terminology, general requirements, testing and marking	Withdrawn, Superseded	BS EN 303-1:2017 Heating boilers. Heating boilers with forced draught burners. Terminology, general requirements, testing and marking
B20, T10, T32	C1.4.30	BS EN 303-2:1999 Heating boilers. Heating boilers with forced draught burners. Special requirements for boilers with atomizing oil burners BS EN 15034:2006 Heating boilers. Condensing heating boilers for fuel oil	Withdrawn, Superseded	BS EN 303-2:2017 Heating boilers. Heating boilers with forced draught burners. Special requirements for boilers with atomizing oil burners
B20, N11, N12, W60, W69	C5.20, C5.30, C1.7.10	BS EN 50291-1:2010+A1:2012 Electrical apparatus for the detection of carbon monoxide in domestic premises. Test methods and performance requirements	Withdrawn, Superseded	BS EN 50291-1:2018 Gas detectors. Electrical apparatus for the detection of carbon monoxide in domestic premises. Test methods and performance requirements

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Section 4 Detail Changes to Reference Documents

Work Section		Reference Document - Current	Status of Current Reference	Reference Document - New
CAWS	BG 56			
N11	C5.20		Amendment 1	BS 6172:2010+A1:2017 Specification for installation, servicing and maintenance of domestic gas cooking appliances (2nd and 3rd family gases). Specification
N12	C5.30		New Addition	BS EN 50593:2017 Electric dishwashers for commercial use. Test methods for measuring the performance
N13, S12, S33	C5.40, C1.3.20	BS EN 1442:2006+A1:2008 LPG equipment and accessories. Transportable refillable welded steel cylinders for LPG. Design and construction	Withdrawn, Superseded	BS EN 1442:2017 LPG equipment and accessories. Transportable refillable welded steel cylinders for LPG. Design and construction
R10, Z Part 2	C1.1.10, C1.8.10		New Addition	BS EN 12200-1:2016 Plastics rainwater piping systems for above ground external use. Unplasticized poly(vinyl chloride) (PVC-U). Specifications for pipes, fittings and the system
R11, R12,	C1.1.20, C1.1.30	BS EN 1253-5:2003 Gullies for buildings. Gullies with light liquids closure	Withdrawn, Superseded	BS EN 1253-5:2017 Gullies for buildings. Gullies with light liquids closure
S16, V11, V31, V91, V92, Y71	C1.2.60, C2.1.20, C2.1.80, D2.6.50	BS EN 60051-1:1999, IEC 60051-1:1997 Direct acting indicating analogue electrical measuring instruments and their accessories. Definitions and general requirements common to all parts	Withdrawn, Superseded	BS EN 60051-1:2017 Direct acting indicating analogue electrical measuring instruments and their accessories. Definitions and general requirements common to all parts
S30, S33, S51, S52, S53, T14, T16, T19, T20, T33, T60, T61, U60,	C1.5.10, C1.3.20, C1.5.50, C1.5.60, C1.5.70, C1.4.70, C1.4.90,		Amendment 3	BS EN 13445- 3:2014+A3:2017 Unfired pressure vessels. Design

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Work Section		Reference Document - Current	Status of Current Reference	Reference Document - New
CAWS	BG 56			
Z Part 2	C1.4.100, C1.4.110, C1.4.130, C1.4.380, C1.4.385, C1.4.350, C1.4.120			
S30, S33, S51, S52, S53, S70, T10, T11, T12, T13, T14, T15, T16, T19, T20, T33, T60, T61, T69, Z Part 2	C1.5.10, C1.3.20, C1.5.50, C1.5.60, C1.5.70, C1.6.70, C1.4.30, C1.4.40, C1.4.50, C1.4.60, C1.4.70, C1.2.21, C1.4.90, C1.4.100, C1.4.110, C1.4.130, C1.4.380, C1.4.385, C1.8.10	PD 5500:2015+A3:2017 Specification for unfired fusion welded pressure vessels	Withdrawn, Superseded	PD 5500:2018 Specification for unfired fusion welded pressure vessels
S32, S33, T32	C1.3.10, C1.3.20	BS EN 12261:2002 Gas meters. Turbine gas meters	Withdrawn, Superseded	BS EN 12261:2018 Gas meters. Turbine gas meters
S32, T32	C1.3.10	BS EN 12480:2015 Gas meters. Rotary displacement gas meters	Withdrawn, Superseded	BS EN 12480:2018 Gas meters. Rotary displacement gas meters
S34, W60, W69	C1.5.30, C1.7.10		Amendment 1	BS EN 61511- 1:2017+A1:2017 Functional safety. Safety instrumented systems for the process industry sector. Framework, definitions, system, hardware and application programming requirements
S34	C1.5.30	BS EN 61511-2:2004 Functional safety. Safety instrumented systems for the process industry sector.	Withdrawn, Superseded	BS EN 61511-2:2017 Functional safety. Safety instrumented systems for the process industry sector. Guidelines for the

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Section 4 Detail Changes to Reference Documents

Work Section		Reference Document - Current	Status of Current Reference	Reference Document - New
CAWS	BG 56			
		Guidelines for the application of IEC 61511-1		application of IEC 61511-1
T10, T11, T13, T16, T32, Y51,	C1.4.30, C1.4.40, C1.4.60, C1.4.90, D1.10.20	BS EN 12953-4:2002 Shell boilers. Workmanship and construction of pressure parts of the boiler	Withdrawn, Superseded	BS EN 12953-4:2018 Shell boilers. Workmanship and construction of pressure parts of the boiler
T14, T60, T69, U60	C1.4.70, C1.4.380, C1.4.350	BS EN 13771-2:2007 Compressors and condensing units for refrigeration. Performance testing and test methods. Condensing units	Withdrawn, Superseded	BS EN 13771-2:2017 Compressors and condensing units for refrigeration. Performance testing and test methods. Condensing units
T14, T62	C1.4.70, C1.4.400		New Addition	BS EN 16905-5:2017 Gas-fired endothermic engine driven heat pumps. Calculation of seasonal performances in heating and cooling mode
T15	C1.2.21	BS EN 12976-1:2006 Thermal solar systems and components. Factory made systems. General requirements	Withdrawn, Superseded	BS EN 12976-1:2017 Thermal solar systems and components. Factory made systems. General requirements
T15	C1.2.21	BS EN 12976-2:2006 Thermal solar systems components. Factory made systems. Test methods	Withdrawn, Superseded	BS EN 12976-2:2017 Thermal solar systems and components. Factory made systems. Test methods
T15	C1.2.21	BS EN 12977-1:2012 Thermal solar systems and components. Custom built systems. General requirements for solar water heaters and combisystems	Withdrawn, Superseded	BS EN 12977-1:2018 Thermal solar systems and components. Custom built systems. General requirements for solar water heaters and combisystems
T15	C1.2.21	BS EN 12977-2:2012 Thermal solar systems and components. Custom built systems. Test methods for solar water heaters and combisystems	Withdrawn, Superseded	BS EN 12977-2:2018 Thermal solar systems and components. Custom built systems. Test methods for solar water heaters and combisystems

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Work Section		Reference Document - Current	Status of Current Reference	Reference Document - New
CAWS	BG 56			
T15	C1.2.21	BS EN 12977-3:2012 Thermal solar systems and components. Custom built systems. Performance test methods for solar water heater stores	Withdrawn, Superseded	BS EN 12977-3:2018 Thermal solar systems and components. Custom built systems. Performance test methods for solar water heater stores
T15	C1.2.21	BS EN 12977-4:2012 Thermal solar systems and components. Custom built systems. Performance test methods for solar combistores	Withdrawn, Superseded	BS EN 12977-4:2018 Thermal solar systems and components. Custom built systems. Performance test methods for solar combistores
T19, V11, V13, V14, V32, V34, V35, Y71	C1.4.100, C2.1.20, C2.1.40, C2.1.50, C2.1.90, C2.1.160, C2.1.170, D2.6.50	BS EN 13757-2:2004 Communication systems for remote reading of meters. Physical and link layer	Withdrawn, Superseded	BS EN 13757-2:2018 Communication systems for meters. Wired M-Bus communication
T19, V10, V13	C1.4.100, C2.1.10, C2.1.40	BS ISO 8528-1:2005 Reciprocating internal combustion engine driven alternating current generating sets. Application, ratings and performance	Withdrawn, Superseded	BS ISO 8528-1:2018 Reciprocating internal combustion engine driven alternating current generating sets. Application, ratings and performance
T19, V10, V13	C1.4.100, C2.1.10, C2.1.40		New Addition	BS ISO 8528-7:2017 Reciprocating internal combustion engine driven alternating current generating sets. Technical declarations for specification and design
T19, V10, V13	C1.4.100, C2.1.10, C2.1.40		New Addition	BS ISO 8528-9:2017 Reciprocating internal combustion engine driven alternating current generating sets. Measurement and evaluation of mechanical vibrations
T32, T69, Z Part 2	C1.8.20		New Addition	BS EN 558:2017 Industrial valves. Face- to-face and centre-to-

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Work Section		Reference Document - Current	Status of Current Reference	Reference Document - New
CAWS	BG 56			
				face dimensions of metal valves for use in flanged pipe systems. PN and Class designated valves
T71	C1.4.410		New Addition	BS EN 16855-1:2017 Walk-in cold rooms. Definition, thermal insulation performance and test methods. Prefabricated cold room kits
T19, V11, V13, V14, V32, V34, V35, Y71	C1.4.100, C2.1.20, C2.1.40, C2.1.50, C2.1.90, C2.1.160, C2.1.170, D2.6.50	BS EN 13757-3:2013 Communication systems for and remote reading of meters. Dedicated application layer	Withdrawn, Superseded	BS EN 13757-3:2018 Communication systems for meters. Application protocols
T19, V11, V13, V14, V32, V34, V35, Y71	C1.4.100, C2.1.20, C2.1.40, C2.1.50, C2.1.90, C2.1.160, C2.1.170, D2.6.50		New Addition	BS EN 13757-7:2018 Communication systems for meters. Transport and security services
V11, Y71	C2.1.20, D2.6.50	BS 7856:2013 Code of practice for special design and other features of alternating current watthour meters for active energy (MID accuracy classes A and B) for use in the UK	Withdrawn, Superseded	BS 7856:2017 Specification for special design and other features of alternating current watthour meters for active energy for use in the UK (Accuracy Classes A and B)
V11, Y71	C2.1.20, D2.6.50		Amendment 1	BS EN 62053-23:2003+A1:2017 Electricity metering equipment (a.c.). Particular requirements. Static meters for reactive energy (classes 2 and 3)
V11, Y71	C2.1.20, D2.6.50		Amendment 1	BS EN 62053-24:2015+A1:2017 Electricity metering equipment (a.c.). Particular requirements.

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Work Section		Reference Document - Current	Status of Current Reference	Reference Document - New
CAWS	BG 56			
				Static meters for reactive energy at fundamental frequency (classes 0,5 S, 1 S and 1)
V11, Y71	C2.1.20, D2.6.50		New Addition	BS EN 62053-31:1999, IEC 62053-31:1998 Electricity metering equipment (a.c.). Particular requirements. Pulse output devices for electromechanical and electronic meters (two wires only)
V11, Y71	C2.1.20, D2.6.50	BS EN 61968-3:2004 Application integration at electric utilities. System interfaces for distribution management. Interface for network operations	Withdrawn, Superseded	BS EN IEC 62884-3:2018 Measurement techniques of piezoelectric, dielectric and electrostatic oscillators. Frequency aging test methods
Y71	D2.6.50		New Addition	BS EN 62053-61:1999, IEC 62053-61:1998 Electricity metering equipment (a.c.). Particular requirements. Power consumption and voltage requirements
V34	C2.1.160		New Addition	BS EN 62752:2016 In-cable control and protection device for mode 2 charging of electric road vehicles (IC-CPD)
V34	C2.1.160		New Addition	BS EN 61851-21-1:2017 Electric vehicle conductive charging system. Electric vehicle on-board charger EMC requirements for conductive connection to an AC/DC supply
V34	C2.1.160		New Addition	BS EN 61851-22:2002 Electric vehicle conductive charging system. A.C. electric vehicle charging station

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Work Section		Reference Document - Current	Status of Current Reference	Reference Document - New
CAWS	BG 56			
V34	C2.1.160		New Addition	BS EN 61851-23:2014 Electric vehicle conductive charging system. DC electric vehicle charging station
V34	C2.1.160		New Addition	BS EN 61851-24:2014 Electric vehicle conductive charging system. Digital communication between a d.c. EV charging station and an electric vehicle for control of d.c. charging
V34	C2.1.160		New Addition	BS EN 62196-2:2017 Plugs, socket-outlets, vehicle connectors and vehicle inlets. Conductive charging of electric vehicles. Dimensional compatibility and interchangeability requirements for a.c. pin and contact-tube accessories
V34	C2.1.160		New Addition	BS EN 62196-3:2014 Plugs, socket-outlets, vehicle connectors and vehicle inlets. Conductive charging of electric vehicles. Dimensional compatibility and interchangeability requirements for d.c. and a.c./d.c. pin and contact- tube vehicle couplers
W10, W11	C2.3.10	BS EN 41003:2009 Particular safety requirements for equipment to be connected to telecommunication networks and/or a cable distribution system	Withdrawn, Superseded	BS EN 62949:2017 Particular safety requirements for equipment to be connected to information and communication technology networks
W41	C2.4.20		Amendment 2	BS EN 50131-2-7- 1:2012+A2:2016 Alarm systems. Intrusion and hold-up systems.

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Work Section		Reference Document - Current	Status of Current Reference	Reference Document - New
CAWS	BG 56			
				Intrusion detectors. Glass break detectors (acoustic)
W41	C2.4.20		Amendment 2	BS EN 50131-2-7-2:2012+A2:2016 Alarm systems. Intrusion and hold-up systems. Intrusion detectors. Glass break detectors (passive)
W41	C2.4.20		Amendment 2	BS EN 50131-2-7-3:2012+A2:2016 Alarm systems. Intrusion and hold-up systems. Intrusion detectors. Glass break detectors (active)
W60, W69, Y72	C1.7.10, D2.6.60	BS EN ISO 16484-5:2014 Building automation and control systems (BACS). Data communication protocol	Withdrawn, Superseded	BS EN ISO 16484-5:2017 Building automation and control systems (BACS). Data communication protocol
Y10, Z Part 2	D1.8.10, C1.8.10	BS EN 1453-1:2000 Plastics piping systems with structured-wall pipes for soil and waste discharge (low and high temperature) inside buildings. Unplasticized poly(vinyl chloride) (PVC-U). Specifications for pipes and the system	Withdrawn, Superseded	BS EN 1453-1:2017 Plastics piping systems with structured-wall pipes for soil and waste discharge (low and high temperature) inside buildings. Unplasticized poly(vinyl chloride) (PVC-U). Specifications for pipes and the system
Y41	D1.4.460		New Addition	BS ISO 21940-2:2017 Mechanical vibration. Rotor balancing. Vocabulary
Y41	D1.4.460		New Addition	BS ISO 21940-11:2016 Mechanical vibration. Rotor balancing. Procedures and tolerances for rotors with rigid behaviour

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Section 4 Detail Changes to Reference Documents

Work Section		Reference Document - Current	Status of Current Reference	Reference Document - New
CAWS	BG 56			
Y41	D1.4.460		New Addition	BS ISO 21940-12:2016 Mechanical vibration. Rotor balancing. Procedures and tolerances for rotors with flexible behaviour
Y41	D1.4.460		New Addition	BS ISO 21940-13:2012 Mechanical vibration. Rotor balancing. Criteria and safeguards for the insitu balancing of medium and large rotors
Y41	D1.4.460		New Addition	BS ISO 21940-14:2012 Mechanical vibration. Rotor balancing. Procedures for assessing balance errors
Y41	D1.4.460		New Addition	BS ISO 21940-21:2012 Mechanical vibration. Rotor balancing. Description and evaluation of balancing machines
Y41	D1.4.460		New Addition	BS ISO 21940-23:2012 Mechanical vibration. Rotor balancing. Enclosures and other protective measures for the measuring station of balancing machines
Y41	D1.4.460		New Addition	BS ISO 21940-31:2013 Mechanical vibration. Rotor balancing. Susceptibility and sensitivity of machines to unbalance
Y41	D1.4.460		New Addition	BS ISO 21940-32:2012 Mechanical vibration. Rotor balancing. Shaft and fitment key convention

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Section 4 Detail Changes to Reference Documents

Work Section		Reference Document - Current	Status of Current Reference	Reference Document - New
CAWS	BG 56			
Y50	D1.9.10		New Addition	BS EN 16783:2017 Thermal insulation products. Product category rules (PCR) for factory made and in-situ formed products for preparing environmental product declarations
Y71	D2.6.50		Amendment 1	BS EN 62052- 11:2003+A1:2017 Electricity metering equipment (AC). General requirements, tests and test conditions. Metering equipment
Y71	D2.6.50		New Addition	BS EN 62052- 21:2004+A1:2017 Electricity metering equipment (a.c.). General requirements, tests and test conditions. Tariff and load control equipment
Y71	D2.6.50		New Addition	BS EN 62052-31:2016 Electricity metering equipment (AC). General requirements, tests and test conditions. Product safety requirements and tests
Y71	D2.6.50		Amendment 1	BS EN 62054- 21:2004+A1:2017 Electricity metering (AC). Tariff and load control. Particular requirements for time switches
Z Part 2	C1.8.10		Amendment 1	BS EN ISO 15493:2003+A1:2017 Plastics piping systems for industrial applications. Acrylonitrile-butadiene- styrene (ABS), unplasticized poly(vinyl chloride)(PVC-U) and chlorinated poly(vinyl chloride) (PVC-C). Specifications for components and the system. Metric series

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Work Section		Reference Document - Current	Status of Current Reference	Reference Document - New
CAWS	BG 56			
Z Part 2	C1.8.20		New Addition	BS EN ISO 6134:2017 Rubber hoses and hose assemblies for saturated steam. Specification
Z Part 2	C1.8.20		New Addition	BS EN ISO 6553:2017 Automatic steam traps. Marking
Z Part 2	C1.8.10		New Addition	BS ISO 9349:2017 Ductile iron pipes, fittings, accessories and their joints. Thermal preinsulated products
Z Part 2	C1.8.20		New Addition	BS ISO 5208:2015 Industrial valves. Pressure testing of metallic valves
Z Part 2	C1.8.20		New Addition	BS ISO 9393-1:2004 Thermoplastics valves for industrial applications. Pressure test methods and requirements. General