RIAS-regs

Certification Checklist

This document contains:
Domestic from Oct 2010
Domestic from Oct 2013
Domestic from Oct 2015
Non-domestic from Oct 2015
And
An example of a completed checklist

These Checklists are available as a word documents on request from the Schemes' Administrator

RIAS-regs

Certification Checklist

Domestic from Oct 2010

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RIAS
The Royal Incorporation
of Architects in Scotland

CERTIFICATION CHECKLIST: Application Date 1st Oct 2010 onwards

Date: Job Ref:

Project Title: Project Description:

Project Location:

Certificate N°: Warrant N°: (if known)

Client: Agent:

Designers/ Other Certifiers/
Roles:

Approved Certifier is Applicant / Agent Yes / No

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6.0 Introduction			
6.0.1 Background			
6.0.2 Aims			
6.0.3 General guidance			
6.0.4 U-Values			
6.0.5 Thermal conductivity			
6.0.6 Insulation envelope where U-Values should be ignored			
6.0.7 Buffering effects on the insulation envelop			
6.0.8 Roof that performs the function of a floor			
6.0.9 Conservatories and atria			
6.0.10 Annexes to guidance			
6.0.11 Calculation of areas			
6.0.12 Latest changes			
6.1 Carbon dioxide emissions			
6.1 Functional standard			
6.1.0 Introductions			
6.1.1 Dwellings			
6.1.2 Setting the TER			
6.1.3 Calculating DER			
6.1.4 Buildings with multiple dwellings			
6.1.5 Common areas			
6.1.6 A simplified approach			

CERTIFICATION CHECKLIST: Domestic Application Date Prior to 1st Oct 2010			
6.1.7 Conservatories and stand-alone buildings			
6.2 Building insulation envelope			
6.2 Functional standard			
6.2.0 Introduction			
6.2.1 Maximum U-values			
6.2.2 Areas of windows, doors and rooflights			
6.2.3 Resisting heat loss through thermal bridging			
6.2.4 Limiting air infiltration			
6.2.5 Air-tightness testing			
6.2.6 Conversion of unheated buildings			
6.2.7 Conversion of heated buildings			
6.2.8 Conversion of historic buildings			
6.2.9 Extensions to the insulation envelope			
6.2.10 Thermal bridging and air infiltration for existing buildings			
6.2.11 Alterations to the insulation envelope			
6.2.12 Conservatories			
6.2.13 Stand alone buildings			
6.3 Heating system			
6.3 Functional standard			
6.3.0 Introduction			
6.3.1 Gas and oil wet central heating efficiency			
6.3.2 Solid fuel wet central heating efficiency			
6.3.3 Electric wet central heating efficiency			
6.3.4 Heat pump system efficiency (warm and hot water)			
6.3.5 Dry central heating systems efficiency			
6.3.6 Solar water heating efficiency			
6.3.7 Mico combined heat and power efficiency			

CERTIFICATION CHECKLIST: Domestic Application Date Prior to 1st Oct 2010			
6.3.8 Controls for wet space heating and hot water systems			
6.3.9 Controls for dry space heating and hot water systems			
6.3.10 Controls for warm air and hot water systems			
6.3.11 Controls for solar water heating			
6.3.12 Work on existing buildings			
6.3.13 Conservatories			
6.4 Insulation of pipes, ducts and vessels			
6.4 Functional standard			
6.4.0 Introduction			
6.4.1 Insulation of pipes and ducts			
6.4.2 Insulation of vessels			
6.4.3 Work on existing buildings			
6.5 Artificial and display lighting			
6.5 Functional standard			
6.5.0 Introduction			
6.5.1 Artificial lighting			
6.6 Mechanical ventilation and air conditioning			
6.6 Functional standard			
6.6.0 Introduction			
6.6.1 Form and fabric of the building			
6.7 Commissioning building services			
6.7 Functional standard			
6.7.0 Introduction			
6.7.1 Inspection and commissioning			
6.8 Written Information			
6.8 Functional standard			
6.8.0 Introduction			
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CERTIFICATION CHECKLIST: Domestic Application Date Prior to 1st Oct 2010			
6.8.2 Work on existing buildings			
6.9 Energy performance certificate			
6.9 Functional standard			
6.9.0 Introduction			
6.9.1 Calculating the carbon dioxide emissions for a certificate			
6.9.2 Information to be provided for dwellings			
6.9.3 Location of an energy performance certificate			
6.9.4 Conservatories and other stand-alone buildings			
6.10 Metering			
6.10 Functional standard			
6.10.0 Introduction			
Annex A Compensating U-values for windows, doors and rooflights			
Annex B Compensatory approach			

CERTIFICATION CHECKLIST: Domestic Application Date Prior to 1st Oct 2010
Section 1-5 Issues. Outline any pertinent points raised regarding other sections of the regulations:

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6.0 Introduction			
6.0.1 Background			
6.0.2 Aims			
6.0.3 General guidance			
6.0.4 U-Values			
6.0.5 Thermal conductivity			
6.0.6 Thermal transmittance through separating elements			
6.0.7 Buffering effects on the insulation envelop			
6.0.8 Roofs that performs the function of a floor			
6.0.9 Conservatories and atria			
6.0.10 Performance of fixed building services			
6.0.11 Calculation of areas			
6.0.12 Latest changes			
6.0.13 Relevant Legislation			
6.0.14 Certification			
6.1 Carbon dioxide emissions			
6.1 Mandatory standard			
6.1.0 Introduction			
6.1.1 Dwellings			
6.1.2 Setting the target carbon emissions level (TER)			

CERTIFICATION CHECKLIST: Domestic Application Date Prior to 1st Oct 2013			
6.1.3 Calculating carbon emissions for the proposed dwelling (DER)			
6.1.4 Buildings with multiple dwellings			
6.1.5 Common areas in buildings with multiple dwellings			
6.1.6 A simplified approach			
6.1.7 Conservatories and stand-alone buildings			
6.2 Building insulation envelope			
6.2 Mandatory standard			
6.2.0 Introduction			
6.2.1 Maximum U-values			
6.2.2 Areas of windows, doors and rooflights			
6.2.3 Limiting heat loss through thermal bridging			
6.2.4 Limiting uncontrolled air infiltration			
6.2.5 Air-tightness testing			
6.2.6 Conversion of unheated buildings			
6.2.7 Conversion of heated buildings			
6.2.8 Conversion of historic, listed or traditional buildings			
6.2.9 Extensions to the insulation envelope			
6.2.10 Thermal bridging and air infiltration for existing buildings			
6.2.11 Alterations to the insulation envelope			
6.2.12 Conservatories			
6.2.13 Stand-alone buildings			
6.3 Heating system			
6.3 Mandatory standard			
6.3.0 Introduction			
6.3.1 Gas and oil wet central heating efficiency			
6.3.2 Solid fuel wet central heating efficiency			

CERTIFICATION CHECKLIST: Domestic Application Date Prior to 1st Oct 2013			
6.3.3 Electric wet central heating efficiency			
6.3.4 Heat pump system efficiency (warm and hot water)			
6.3.5 Dry central heating systems efficiency			
6.3.6 Solar water heating efficiency			
6.3.7 Mico combined heat and power efficiency			
6.3.8 Efficiency of heating system circulators			
6.3.9 Controls for wet space heating and hot water systems			
6.3.10 Controls for dry space heating and hot water systems			
6.3.11 Controls for combined warm air and hot water systems			
6.3.12 Controls for solar water heating			
6.3.13 Work on existing buildings			
6.3.14 Conservatories			
6.4 Insulation of pipes, ducts and vessels			
6.4 Mandatory standard			
6.4.0 Introduction			
6.4.1 Insulation of pipes and ducts			
6.4.2 Insulation of vessels			
6.4.3 Work on existing buildings			
6.5 Artificial and display lighting			
6.5 Mandatory standard			
6.5.0 Introduction			
6.5.1 Fixed internal lighting			
6.5.2 Fixed external lighting			
6.6 Mechanical ventilation and air conditioning			
6.6 Mandatory standard			
6.6.0 Introduction			
6.6.1 Form and fabric of the building			

CERTIFICATION CHECKLIST: Domestic Application Date Prior to 1st Oct 2013			
6.6.2 Efficiency of air conditioning systems			
6.6.3 Efficiency of mechanical ventilation systems			
6.7 Commissioning building services			
6.7 Mandatory standard			
6.7.0 Introduction			
6.7.1 Inspection and commissioning			
6.8 Written Information			
6.8 Mandatory standard			
6.8.0 Introduction			
6.8.1 Written information			
6.8.2 Work on existing buildings			
6.9 Energy performance certificate			
6.9 Mandatory standard			
6.9.0 Introduction			
6.9.1 Calculating the carbon dioxide emissions for a certificate			
6.9.2 Information to be provided for dwellings			
6.9.3 Location of an energy performance certificate			
6.9.4 Conservatories and other stand-alone buildings			
6.10 Metering			
6.10 Mandatory standard			
6.10.0 Introduction			
6A Compensating U-values for windows, doors and rooflights			
6.A.0 Introduction			

CERTIFICATION CHECKLIST: Domestic Application Date Prior to 1st Oct 2013			
6.A.1 Example of trade-off between windows, doors and rooflights			
6B Compensatory approach – heat loss example			
6.B.0 Introduction			
6.B.1 Example: alteration to create rooms in a roof space			
6.B.2 Proposed attic			
6.B.3 “Notional attic”			
6.B.4 The comparison			
6.B.5 Additional insulation work			
Section 1-5 and 7 Issues. Outline any pertinent points raised regarding other sections of the regulations:			

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Domestic from Oct 2015

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6.0 Introduction			
6.0.1 Background			
6.0.2 Aims			
6.0.3 General guidance			
6.0.4 U-Values			
6.0.5 Thermal conductivity			
6.0.6 Thermal transmittance through separating elements			
6.0.7 Buffering effects on the insulation envelop			
6.0.8 Roofs that performs the function of a floor			
6.0.9 Conservatories and atria			
6.0.10 Performance of fixed building services			
6.0.11 Calculation of areas			
6.0.12 Latest changes			
6.0.13 Relevant Legislation			
6.0.14 Certification			
6.1 Carbon dioxide emissions			
6.1 Mandatory standard			
6.1.0 Introduction			
6.1.1 Dwellings			
6.1.2 Setting the target carbon emissions level (TER)			

CERTIFICATION CHECKLIST: Domestic Application Date From 1st Oct 2015 Onwards			
6.1.3 Calculating carbon emissions for the proposed dwelling (DER)			
6.1.4 Buildings with multiple dwellings			
6.1.5 Common areas in buildings with multiple dwellings			
6.1.6 A simplified approach			
6.1.7 Conservatories and stand-alone buildings			
6.2 Building insulation envelope			
6.2 Mandatory standard			
6.2.0 Introduction			
6.2.1 Maximum U-values for new buildings			
6.2.2 Areas of windows, doors and rooflights			
6.2.3 Limiting heat loss through thermal bridging			
6.2.4 Limiting uncontrolled air infiltration			
6.2.5 Air-tightness testing			
6.2.6 Introducing heating to unheated buildings and conversion of unheated buildings			
6.2.7 Conversion of heated buildings			
6.2.8 Conversion of historic, listed or traditional buildings			
6.2.9 Extensions to the insulation envelope			
6.2.10 Thermal bridging and air infiltration for existing buildings			
6.2.11 Alterations to the insulation envelope			
6.2.12 Conservatories			
6.2.13 Stand-alone buildings			
6.3 Heating system			
6.3 Mandatory standard			
6.3.0 Introduction			
6.3.1 Performance of fixed heating systems in new and existing buildings			

CERTIFICATION CHECKLIST: Domestic Application Date From 1st Oct 2015 Onwards			
6.3.2 Conservatories			
6.4 Insulation of pipes, ducts and vessels			
6.4 Mandatory standard			
6.4.0 Introduction			
6.4.1 Insulation of pipes, ducts and vessels in new and existing buildings			
6.4.2 Work on existing buildings			
6.5 Artificial and display lighting			
6.5 Mandatory standard			
6.5.0 Introduction			
6.5.1 Fixed lighting			
6.6 Mechanical ventilation and air conditioning			
6.6 Mandatory standard			
6.6.0 Introduction			
6.6.1 Form and fabric of the building			
6.6.2 Efficiency of mechanical ventilation and air conditioning systems in new and existing buildings			
6.6.3 Design and installation of ductwork			
6.7 Commissioning building services			
6.7 Mandatory standard			
6.7.0 Introduction			
6.7.1 Inspection and commissioning			
6.8 Written Information			
6.8 Mandatory standard			
6.8.0 Introduction			
6.8.1 Written information			
6.8.2 Quick Start Guide			
6.8.3 Work on existing buildings			
6.9 Energy performance certificate			
6.9 Mandatory standard			
6.9.0 Introduction			

CERTIFICATION CHECKLIST: Domestic Application Date From 1st Oct 2015 Onwards			
6.9.1 Calculating the carbon dioxide emissions for a certificate			
6.9.2 Information to be provided for buildings			
6.9.3 Location of an energy performance certificate			
6.9.4 Conservatories and other stand-alone buildings			
6.10 Metering			
6.10 Mandatory standard			
6.10.0 Introduction			
6A Compensating U-values for windows, doors and rooflights			
6.A.0 Introduction			
6.A.1 Example of trade-off between windows, doors and rooflights			
6B Compensatory approach – heat loss example			
6.B.0 Introduction			
6.B.1 Example: alteration to create rooms in a roof space			
6.B.2 Example: single storey extension			
6.B.3 Example: single storey extension subject to column (a)			

CERTIFICATION CHECKLIST: Domestic Application Date From 1st Oct 2015 Onwards
Section 1-5 and 7 Issues. Outline any pertinent points raised regarding other sections of the regulations:

CERTIFICATION CHECKLIST: Domestic Application Date From 1st Oct 2015 **Domestic Services Compliance Guide For Scotland**				
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Section 1	**Introduction**			
1.1	Scope			
1.2	Innovative systems			
1.3	European Directive			
1.4	Status of guide			
1.5	How to use this guide			
1.6	Key terms			
1.7	Work on existing systems			
1.8	Replacement of primary heating appliances			
1.9	Summary of recommended minimum energy efficiency standards			
Section 2	**Gas-fired space and water heating**			
2.1	Scope of guidance			
2.2	Gas-fired wet central heating systems			
2.3	Gas-fired range cookers with integral central heating boiler			
2.4	Gas-fired range warm air heating			
2.5	Gas-fired fixed independent space heating appliances			
2.6	Gas-fired decorative fuel-effect fires			
2.7	Gas-fired for secondary space heating provided as part of a combined fire and back boiler unit			

CERTIFICATION CHECKLIST: Domestic Application Date From 1st Oct 2015 Domestic Services Compliance Guide For Scotland				
Section 3	**Oil-fired space and water heating**			
3.1	Scope of the guidance			
3.2	Oil-fired wet central heating systems			
3.3	Oil-fired range cookers with integral central heating boilers			
3.4	Continuously-burning oil-fired vaporising appliances providing secondary hating or hot water			
3.5	Oil-fired fixed independent space heating appliances			
3.6	Supplementary information			
Section 4	**Electric heating**			
4.1	Scope of the guidance			
4.2	Electric boilers serving central heating systems			
4.3	Electric heating systems (other than electric boilers for central heating)			
Section 5	**Solid fuel heating**			
5.1	Scope of the guidance			
5.2	Solid fuel appliances for primary heating			
5.3	Central heating systems using certain types of solid fuel appliances			
5.4	Solid fuel appliances for secondary heating			
Section 6	**Community Heating**			
6.1	Scope of the guidance			
6.2	New and existing community heating schemes			
Section 7	**Underfloor heating**			
7.1	Scope of the guidance			

CERTIFICATION CHECKLIST: Domestic Application Date From 1st Oct 2015 Domestic Services Compliance Guide For Scotland				
7.2	Underfloor heating in new dwellings			
Section 8	**Mechanical ventilation**			
8.1	Scope of the guidance			
8.2	Energy efficiency of mechanical ventilation systems			
Section 9	**Heat pumps**			
9.1	Scope of the guidance			
9.2	Key terms			
9.3	Warm water and hot water heat pumps			
Section 10	**Comfort cooling**			
10.1	Scope of the guidance			
10.2	Air-cooled and water-cooled air conditioners			
Section 11	**Solar water heating**			
11.1	Scope of the guidance			
11.2	Indirect systems			
Section 12	**Lighting**			
12.1	Scope of the guidance			
12.2	Key terms			
12.3	Internal and External lighting			
Section 13	**Micro-combined heat and power**			
13.1	Scope of the guidance			
13.2	Key terms			
13.3	Micro-CHP systems			
Section 14	**Heating systems circulators**			
14.1	Scope of the guidance			

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Non-Domestic from Oct 2015

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If any of the attributes in this table is reflected in the project, then it is considered an "AB Non-dom" project and can only be certified, within the RIAS-regs Scheme, by an Approved Certifier of Design (Section 6 - Energy) AB Non-domestic.	**Yes / No**
Any new or existing building requiring a new boiler or multiple linked boilers and heating devices with an input ≥ 70kW. to which BS6644: 2011 applies	
Altering, extending or converting any existing building requiring a heating system with an output ≥ 70kW ???. Except where the alterations to the existing heating impact on a section or sections of the system with less than a 7kW output.	
Any new or existing building requiring one or more ducted ventilation systems, made up of multiple components. Except where none of those systems is capable of individually delivering > 200l/sec supply or extract air and each system is provided with their own package controls.	
Any new or existing building requiring one or more cooling systems, made up of multiple components. Except where none of those systems has an individually cooling capacity > 12 kW and each system is provided with their own package controls.	
Any works including individual biomass boilers with an output > 45kW	
Any works including individual ASHP or a GSHP's with an output > 45kW	
Any works including individual photovoltaic arrays with a peak generating capacity > 6kW	
Any works including individual solar thermal arrays with a peak generating capacity > 6kW	
Any works including a Combined Heat and Power (CHP) systems with a maximum electrical generating capacity > 6kWe	
Any works including individual wind turbines with a peak generating capacity > 6kW	
Any works including individual hydro turbines with a peak generating capacity > 6kW	
Are you relying on your own full lighting design scheme for input figures	

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6.0.1 Background			
6.0.2 Aims			
6.0.3 General guidance			
6.0.4 U-Values			
6.0.5 Thermal conductivity			
6.0.6 Thermal transmittance through separating elements			
6.0.7 Buffering effects on the insulation envelop			
6.0.8 Roofs that performs the function of a floor			
6.0.9 Atria			
6.0.10 Annexes to guidance			
6.0.11 Performance of fixed building services			
6.0.12 Calculation of areas			
6.0.13 Latest changes			
6.0.14 Relevant Legislation			
6.0.15 Certification			
6.1 Carbon dioxide emissions			
6.1 Mandatory standard			
6.1.0 Introduction			
6.1.1 Simplified Building Energy Model (SBEM)			
6.1.2 Summary of procedure			

CERTIFICATION CHECKLIST: Non-domestic Application Date From 1st Oct 2015 Onwards			
6.1.3 The "Notional" building and SBEM calculation tool			
6.1.4 Fabric and fixed building services specification for "notional" building			
6.1.5 User defined information for "Notional" building			
6.1.6 Calculating the building carbon dioxide emission rate (BER)			
6.1.7 Adjustment of BER			
6.1.8 Shell and fit-out buildings			
6.2 Building insulation envelope			
6.2 Mandatory standard			
6.2.0 Introduction			
6.2.1 Maximum U-values for new buildings			
6.2.2 Display windows			
6.2.3 Areas of windows, doors and rooflights			
6.2.4 Shell and fit-out buildings			
6.2.5 Limiting heat loss through thermal bridging			
6.2.6 Limiting air infiltration			
6.2.7 Air-tightness testing			
6.2.8 Introducing heating to unheated buildings and conversion of unheated buildings			
6.2.9 Conversion of heated buildings			
6.2.10 Conversion of historic, listed or traditional buildings			
6.2.11 Extensions to the insulation envelope			
6.2.12 Thermal bridging and air infiltration for existing buildings			
6.2.13 Alterations to the insulation envelope			
6.3 Heating system			
6.3 Mandatory standard			
6.3.0 Introduction			

CERTIFICATION CHECKLIST: Non-domestic Application Date From 1st Oct 2015 Onwards			
6.3.1 Performance of fixed heating systems in new and existing buildings			
6.3.2 Consequential improvement			
6.4 Insulation of pipes, ducts and vessels			
6.4 Mandatory standard			
6.4.0 Introduction			
6.4.1 Insulation of pipes, ducts and vessels into new and existing buildings			
6.4.2 Work on existing buildings			
6.4.3 Consequential improvement			
6.5 Artificial and display lighting			
6.5 Mandatory standard			
6.5.0 Introduction			
6.5.1 Lighting efficiency and controls			
6.5.2 Consequential improvement			
6.6 Mechanical ventilation and air conditioning (MVAC)			
6.6 Mandatory standard			
6.6.0 Introduction			
6.6.1 Form and fabric in relation to MVAC equipment			
6.6.2 MVAC equipment efficiency, distribution systems and controls in new and existing buildings			
6.6.3 Consequential improvement			
6.7 Commissioning building services			
6.7 Mandatory standard			
6.7.0 Introduction			
6.7.1 Inspection and commissioning			
6.7.2 Ductwork leakage testing			
6.7.3 Work on existing buildings			
6.8 Written Information			

CERTIFICATION CHECKLIST: Non-domestic Application Date From 1st Oct 2015 Onwards			
6.8 Mandatory standard			
6.8.0 Introduction			
6.8.1 Logbook information			
6.8.2 Work on existing buildings			
6.9 Energy performance certificate			
6.9 Mandatory standard			
6.9.0 Introduction			
6.9.1 Calculating the carbon dioxide emissions for a certificate			
6.9.2 Information to be provided for buildings			
6.9.3 Location of an energy performance certificate			
6.9.4 Small stand-alone buildings			
6.10 Metering			
6.10 Mandatory standard			
6.10.0 Introduction			
6.10.1 Metering			
6.10.2 Sub-metering			
6.10.3 Meeting and sub-metering in existing buildings			
6.A Compensating U-values for windows, doors and roof-lights			
6.A.0 Introduction			
6.A.1 Example of trade-off between windows, doors and roof-lights			
6.B Compensatory approach – heat loss example			
6.B.0 Introduction			
6.B.1 Example - extension to an existing building			
6.B.2 Proposed extension			
6.B.3 “Notional extension"			
6.B.4 The comparison			

CERTIFICATION CHECKLIST: Non-domestic Application Date From 1st Oct 2015 Onwards			
6.C Energy performance of modular and portable buildings			
6.C.0 Introduction			
6.C.1 Compliance flowchart			
6.C.2 Determining the Target Emissions Rate for permanent modular and portable buildings			
6.C.3 Fabric U-values for modular and portable buildings			
6.D Improvement to the energy performance of existing building services when carrying out building work			
6.D.0 Introduction			
6.D.1 Application of Direction			
6.D.2 Scope of improvements (types of installations which should be addressed)			
6.D.3 Extent of improvement required (assessing cost and practicality)			
6.D.4 Assessment by applicant			
6.D.5 Review by verifier			
6.D.6 The role of the Local Authority			
6.D.7 Supplementary information - Exclusion by compliance with previous standards			
6.D.8 Examples of the process			

CERTIFICATION CHECKLIST: Non-domestic Application Date From 1st Oct 2015 Onwards
Section 1-5 and 7 Issues. Outline any pertinent points raised regarding other sections of the regulations:

CERTIFICATION CHECKLIST: Non-domestic Application Date From 1st Oct 2015 Onwards **Non-domestic Services Compliance Guide For Scotland**				
Checklist **Only complete those boxes that are relevant.** The use of abbreviations is acceptable, where referenced otherwise insert full text.		Designer ie: Certifier, Other Designer (name) or Performance Specification ACD, (name), PS	Supporting Information ie: On drawings, calculations, specialist reports, manufacturers literature / certificates or Schedule 1 item D, Calc, SR, ML, Cert, S1	Design Provision ie: Within limits set, or British Standard, Eurocode etc cited, or calculations attached, or Form Q required, etc (reference), Calc, Q
Section 1	**Introduction**			
1.1	Scope			
1.2	Innovative systems			
1.3	European Directive			
1.4	Status of guide			
1.5	How to use this guide			
1.6	Key terms for space heating and domestic hot water systems			
1.7	Summary of recommended minimum energy efficiency standards			
Section 2	**Gas, oil and biomass-fired boilers**			
2.1	Introduction			
2.2	Scope of guidance			
2.3	Key terms			
2.4	Determining boiler seasonal efficiency			
2.5	Boilers in new buildings			
2.6	Boilers in existing buildings			
2.7	Heating efficiency credits for replacement boilers			
2.8	Biomass boilers			
Section 3	**Heat pumps**			
3.1	Introduction			
3.2	Scope of the guidance			
3.3	Key terms			
3.4	Heat pumps in new and existing			

CERTIFICATION CHECKLIST: Non-domestic Application Date From 1st Oct 2015 Onwards Non-domestic Services Compliance Guide For Scotland				
	buildings			
3.5	Heating efficiency credits for heat pump systems in existing buildings			
3.6	Supplementary information			
Section 4	**Gas and oil-fired warm air heaters**			
4.1	Introduction			
4.2	Scope of the guidance			
4.3	Key terms			
4.4	Warm air heaters in new and existing buildings			
4.5	Heating efficiency credits for warm air heaters in new and existing buildings			
Section 5	**Gas and oil-fired radiant heaters**			
5.1	Introduction			
5.2	Scope of the guidance			
5.3	Key terms			
5.4	Radiant heaters			
5.5	Heating efficiency credits for radiant heaters in existing buildings			
Section 6	**Combined heat and power and community heating**			
6.1	Introduction			
6.2	Scope of the guidance			
6.3	Key terms			
6.4	CHP in new and existing buildings			
6.5	Supplementary information			
Section 7	**Direct electric space heating**			
7.1	Introduction			
7.2	Scope of the guidance			
7.3	Electric space heating in new and existing buildings			

CERTIFICATION CHECKLIST: Non-domestic Application Date From 1st Oct 2015 Onwards Non-domestic Services Compliance Guide For Scotland				
Section 8	**Domestic hot water**			
8.1	Introduction			
8.2	Scope of the guidance			
8.3	Key terms			
8.4	Domestic hot water systems in new and existing buildings			
8.5	Supplementary information on electric water heaters			
8.6	Heating efficiency credits for domestic hot water systems in new and existing buildings			
Section 9	**Comfort cooling**			
9.1	Introduction			
9.2	Scope of guidance			
9.3	Key items			
9.4	Comfort cooling in new and existing buildings			
9.5	Calculating the seasonal energy efficiency ratio for SBEM			
9.6	Supplementary information			
Section 10	**Air distribution**			
10.1	Introduction			
10.2	Scope of guidance			
10.3	Key items			
10.4	Air distribution systems in new and existing buildings			
10.5	Heat recovery in air distribution systems in new and existing buildings			
10.6	Calculating the specific fan power for SBEM			
Section 11	**Solar water heating**			
11.1	Introduction			
11.2	Scope of the guidance			

CERTIFICATION CHECKLIST: Non-domestic Application Date From 1st Oct 2015 Onwards Non-domestic Services Compliance Guide For Scotland				
11.3	Insulation of pipes and ducts in new and existing buildings			
Section 12	**Lighting**			
12.1	Scope of the guidance			
12.2	Key terms			
12.3	Internal and External lighting			
Section 12	**Lighting**			
12.1	Introduction			
12.2	Scope of the guidance			
12.3	Key terms			
12.4	Lighting in new and existing buildings			
12.5	Lighting Energy Numerical Indicator (LEN)			
Section 13	**Heating and cooling system circulators and water pumps**			
13.1	Introduction			
13.2	Scope of guidance			
13.3	Key terms			
13.4	Glandless circulators and water pumps in new and existing buildings			
13.5	Supplementary information			

RIAS-regs

Certification Checklist

And an example of a typical complete checklist.

RIAS
The Royal Incorporation of Architects in Scotland

CERTIFICATION CHECKLIST: Application Date 1st Oct 2010 onwards

Date:	2 October 2018	Job Ref:	Job No 1
Project Title:	Checkers	Project Description:	New Dwelling
Project Location:	No 1, Second Street, Third Town, TT12 3AB		
Certificate Nº:	C9999999	Warrant Nº:	18/01234
Client:	Mr & Mrs C Lient	Agent:	T-Square & Ass
Designers/ Roles:	T-Square & Ass Architects	Other Certifiers/	R Crete Engineering Struct Engineers

Approved Certifier is Applicant / Agent Yes / No

This Checklist is to be read in conjunction with those drawings, specifications and schedules etc which document the design being certified.

A copy of this checklist must be kept with the project details and any Certificates of Design and copy provided to the Building Warrant Applicant / Agent.

This checklist should not be copied to the Local Authority as part of the Building Warrant application.

List of Drawings, Specifications and Schedules referenced including amendments and location of materials (continue on a separate sheet if required):

T Square & Associates drawings BW (--) 001, 002A, 003 and 004C and R Crete drawings Eng 001, 002A.

This is a single stage warrant for the complete works.

Signed Date

CERTIFICATION CHECKLIST: Domestic Application Date From 1st Oct 2015 Onwards			
Checklist **Only complete those boxes that are relevant.** The use of abbreviations is acceptable, where referenced otherwise insert full text.	Designer ie: Certifier, Other Designer (name) or Performance Specification ACD, (name), PS	Supporting Information ie: On drawings, calculations, specialist reports, manufacturers literature / certificates or Schedule 1 item D, Calc, SR, ML, Cert, S1	Design Provision ie: Within limits set, or British Standard, Eurocode etc cited, or calculations attached, or Form Q required, etc (reference), Calc, Q
6.0 Introduction			
6.0.1 Background			
6.0.2 Aims			
6.0.3 General guidance			
6.0.4 U-Values	Architect	Calcs from Warm and Toastie Insulation Limited.	Calculations to BS EN ISO 6946, BS EN ISO 13370 attached. U value of openings stated on drawings.
6.0.5 Thermal conductivity			
6.0.6 Thermal transmittance through separating elements	Architect	Drawings	None
6.0.7 Buffering effects on the insulation envelop	None		
6.0.8 Roofs that performs the function of a floor	None		
6.0.9 Conservatories and atria	None		
6.0.10 Performance of fixed building services	Architect	Minimum Performance	Specialist contractor
6.0.11 Calculation of areas			
6.0.12 Latest changes			
6.0.13 Relevant Legislation	N/A Floor area < 1,000m^2		
6.0.14 Certification			
6.1 Carbon dioxide emissions			
6.1 Mandatory standard			
6.1.0 Introduction			
6.1.1 Dwellings			
6.1.2 Setting the target carbon emissions level (TER)	Certifier	DER/TER calculation using SAP 2012	Calculation attached

CERTIFICATION CHECKLIST: Domestic Application Date From 1st Oct 2015 Onwards				
6.1.3	Calculating carbon emissions for the proposed dwelling (DER)	Certifier	DER/TER calculation using SAP 2012	Calculation attached
6.1.4	Buildings with multiple dwellings	N/A		
6.1.5	Common areas in buildings with multiple dwellings	N/A		
6.1.6	A simplified approach	N/A		
6.1.7	Conservatories and stand-alone buildings	None		
6.2	Building insulation envelope			
6.2	Mandatory standard			
6.2.0	Introduction			
6.2.1	Maximum U-values for new buildings	Architect	Calcs from Warm and Toastie Insulation Limited.	Calculations to BS EN ISO 6946, BS EN ISO 13370 attached
6.2.2	Areas of windows, doors and rooflights	Certifier	DER/TER calculation using SAP 2012	Calculation attached
6.2.3	Limiting heat loss through thermal bridging	Architect	DER/TER calculation using SAP 2012	Calculation attached
6.2.4	Limiting uncontrolled air infiltration	Architect	Drawings	Specialist testing to be undertaken on completion Air Tightness to ATTMA “TS1” Minimum Performance 4m^3/m^2 @ 50Pascal
6.2.5	Air-tightness testing	Architect	Drawings	Specialist testing to be undertaken on completion Air Tightness to ATTMA “TS1” Minimum Performance 4m^3/m^2 @ 50Pascal
6.2.6	Introducing heating to unheated buildings and conversion of unheated buildings	N/A		
6.2.7	Conversion of heated buildings	N/A		
6.2.8	Conversion of historic, listed or traditional buildings	N/A		
6.2.9	Extensions to the insulation envelope	N/A		
6.2.10	Thermal bridging and air infiltration for existing buildings	N/A		
6.2.11	Alterations to the insulation envelope	N/A		
6.2.12	Conservatories	N/A		
6.2.13	Stand-alone buildings	N/A		

CERTIFICATION CHECKLIST: Domestic Application Date From 1st Oct 2015 Onwards			
6.3 Heating system			
6.3 Mandatory standard			
6.3.0 Introduction			
6.3.1 Performance of fixed heating systems in new and existing buildings	Architect	Drawings	New work meets the requirements of the Domestic Services Compliance Guide
6.3.2 Conservatories	N/A		
6.4 Insulation of pipes, ducts and vessels			
6.4 Mandatory standard			
6.4.0 Introduction			
6.4.1 Insulation of pipes, ducts and vessels in new and existing buildings	Architects	Performance specification on drawings	New work meets the requirements of the Domestic Services Compliance Guide
6.4.2 Work on existing buildings	N/A		
6.5 Artificial and display lighting			
6.5 Mandatory standard			
6.5.0 Introduction			
6.5.1 Fixed lighting	Architects	Performance specification on drawings	New work meets the requirements of the Domestic Services Compliance Guide
6.6 Mechanical ventilation and air conditioning			
6.6 Mandatory standard			
6.6.0 Introduction			
6.6.1 Form and fabric of the building	Architects	Drawings	Cross ventilation provided to ground floor flats 1 and 2. Centralised extract fans to Plots 3 and 4 fitted with a 'purge' switch to extract at a rate of 350m^3/hr. Where upper floor flats are not cross ventilated, windows can be fully opened and the risk of overheating is not significant or moderate as per SAP2012 calculations
6.6.2 Efficiency of mechanical ventilation and air conditioning systems in new and existing buildings	N/A		
6.6.3 Design and installation of ductwork	N/A		

CERTIFICATION CHECKLIST: Domestic Application Date From 1st Oct 2015 Onwards			
6.7 Commissioning building services			
6.7 Mandatory standard			
6.7.0 Introduction			
6.7.1 Inspection and commissioning	Architects	Performance specification on drawings	Inspection and commissioning by installer
6.8 Written Information			
6.8 Mandatory standard			
6.8.0 Introduction			
6.8.1 Written information	Architects	Performance specification on drawings	Written information to be made available to occupier.
6.8.2 Quick Start Guide	Architects	Performance specification on drawings	Quick Start Guide to be made available to occupier.
6.8.3 Work on existing buildings	N/A		
6.9 Energy performance certificate			
6.9 Mandatory standard			
6.9.0 Introduction			
6.9.1 Calculating the carbon dioxide emissions for a certificate	Certifier	Performance specification on drawings	EPC to be provided in accordance with the Energy Performance of Buildings (Scotland) Regulations 2008 as amended.
6.9.2 Information to be provided for buildings	Certifier	Performance specification on drawings	EPC to be provided in accordance with the Energy Performance of Buildings (Scotland) Regulations 2008 as amended.
6.9.3 Location of an energy performance certificate	Architect	Performance specification on drawings	EPC locations shown on drawings.
6.9.4 Conservatories and other stand-alone buildings	N/A		
6.10 Metering	N/A		
6.10 Mandatory standard			
6.10.0 Introduction			
6A Compensating U-values for windows, doors and rooflights	N/A		
6.A.0 Introduction			
6.A.1 Example of trade-off between windows, doors and rooflights			

CERTIFICATION CHECKLIST: Domestic Application Date From 1st Oct 2015 Onwards			
6B Compensatory approach – heat loss example	N/A		
6.B.0 Introduction			
6.B.1 Example: alteration to create rooms in a roof space			
6.B.2 Example: single storey extension			
6.B.3 Example: single storey extension subject to column (a)			

Section 1-5 and 7 Issues. Outline any pertinent points raised regarding other sections of the regulations:

- Construction build up is in line with good practice for the avoidance of interstitial condensation

CERTIFICATION CHECKLIST: Domestic Application Date From 1st Oct 2015 Onwards				
Domestic Services Compliance Guide For Scotland				
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Section 1	**Introduction**			
1.1	Scope			
1.2	Innovative systems			
1.3	European Directive			
1.4	Status of guide			
1.5	How to use this guide			
1.6	Key terms			
1.7	Work on existing systems	N/A		
1.8	Replacement of primary heating appliances	N/A		
1.9	Summary of recommended minimum energy efficiency standards	N/A		
Section 2	**Gas-fired space and water heating**			
2.1	Scope of guidance			
2.2	Gas-fired wet central heating systems	Architects	Specification on drawings	Ideal Logic Combi ESP1 30 reference 017956 SEDBUK 2009 efficiency requirement of 88%. System to be designed to achieve a return water temperature <55°C where possible. Boilers to be interlocked. All dwellings have a floor area <150m^2 and are single zoned. All plots have 24-7 programmers, with room thermostats and TRVs. Hot water controlled separately.

			Heating system to be fully pumped and provided with a bypass value if required by the boiler manufacturer in accordance with their requirements. During final filling of the system, a chemical water treatment inhibitor meeting the manufacturer's specification or other appropriate standard should be added to the primary circuit to control corrosion and the formation of scale and sludge. Installers should also refer to the boiler manufacturer's installation instructions for appropriate treatment products and special requirements for individual boiler models. Where the mains total water hardness exceeds 200 parts per million, provision should be made to treat the feed water to water heaters and the hot water circuit of combination boilers to reduce the rate of accumulation of limescale. On completion of the installation boiler and associated equipment such as pipework, pumps and controls, the equipment should be commissioned in accordance with the manufacturer's instructions. These instructions will be specific to the boiler. The installer should explain fully to the user how to operate the system in an energy efficient manner, and leave behind any user

				manuals provided by manufacturers Insulate pipework in accordance with the following table: Pipe outside diameter (mm) / Maximum heat loss (W/m) 8 / 7.06 10 / 7.23 12 / 7.35 15 / 7.89 22 / 9.12 28 / 10.07 35 / 11.08 42 / 12.19 54 / 14.12 Based on a horizontal pipe at 60°C in still air at 15°C Pipes insulated in accordance with BS 5422 and BR 262.
2.3	Gas-fired range cookers with integral central heating boiler	N/A		
2.4	Gas-fired range warm air heating	N/A		
2.5	Gas-fired fixed independent space heating appliances	N/A		
2.6	Gas-fired decorative fuel-effect fires	N/A		
2.7	Gas-fired for secondary space heating provided as part of a combined fire and back boiler unit	N/A		
Section 3	**Oil-fired space and water heating**			
3.1	Scope of the guidance			
3.2	Oil-fired wet central heating systems	N/A		
3.3	Oil-fired range cookers with integral central heating boilers	N/A		
3.4	Continuously-burning oil-fired vaporising appliances providing	N/A		

CERTIFICATION CHECKLIST: Domestic Application Date From 1st Oct 2015 Onwards				
Domestic Services Compliance Guide For Scotland				
	secondary hating or hot water			
3.5	Oil-fired fixed independent space heating appliances	N/A		
3.6	Supplementary information	N/A		
Section 4	**Electric heating**			
4.1	Scope of the guidance			
4.2	Electric boilers serving central heating systems	Architects	Specification on drawings	Electrical panel heaters to stairs have integral or separate time switch, and integral or room temperature control, or by programmable room thermostats
4.3	Electric heating systems (other than electric boilers for central heating)	N/A		
Section 5	**Solid fuel heating**			
5.1	Scope of the guidance			
5.2	Solid fuel appliances for primary heating	N/A		
5.3	Central heating systems using certain types of solid fuel appliances	N/A		
5.4	Solid fuel appliances for secondary heating	N/A		
Section 6	**Community Heating**			
6.1	Scope of the guidance			
6.2	New and existing community heating schemes	N/A		
Section 7	**Underfloor heating**			
7.1	Scope of the guidance			
7.2	Underfloor heating in new dwellings	N/A		
Section 8	**Mechanical ventilation**			
8.1	Scope of the guidance			

8.2	Energy efficiency of mechanical ventilation systems	Architects	Specification on drawings	Vent-Axia MVDC-MS A ref: 500295. Extract fans to Plots 3 and 4 fitted with a 'purge' switch to extract at a rate of 350m^3/hr. Dmev fans with a Specific Fan Power (SFP) < 0.7 watts per l/s
Section 9	**Heat pumps**			
9.1	Scope of the guidance			
9.2	Key terms			
9.3	Warm water and hot water heat pumps	N/A		
Section 10	**Comfort cooling**			
10.1	Scope of the guidance			
10.2	Air-cooled and water-cooled air conditioners	N/A		
Section 11	**Solar water heating**			
11.1	Scope of the guidance			
11.2	Indirect systems	N/A		
Section 12	**Lighting**			
12.1	Scope of the guidance			
12.2	Key terms			
12.3	Internal and External lighting	Architect	Specification on Drawings	Minimum 100% LE internal lighting (with a power requirement greater than 5 circuit-watts) included with minimum luminous efficiency of 45 lumens/circuit watts and a total output greater than 400 lamp lumens. External manually switched lights limited to 100 lamp-watts per fitting controlled by movement detection and photocells
Section 13	**Micro-combined heat and power**			
13.1	Scope of the guidance			
13.2	Key terms			

13.3	Micro-CHP systems	N/A		
Section 14	**Heating systems circulators**			
14.1	Scope of the guidance			
14.2	Circulators	Architect	Specification on drawings	New circulating pumps to have an Energy Efficiency Index (EEI) no greater than 0.23