Energy Technology List

Department for Energy Security & Net Zero

Product application checklist

Please complete in BLOCK CAPITALS

Retrofit Burner Control Systems

Manufacturer/supplier name: .....

Applicant's name: .....

Telephone number: .....

Product information

Product name: .....

Model number: .....

Please complete each section of this form based on your product's characteristics. Incomplete or incorrect data could affect the processing of your product application.

Each product application should be made on a separate form unless a product's design characteristics are common to all the products. In this instance a single application can be made for multiple products.

1. Product testing and certification	No	Yes
Where type testing has been applied to demonstrate product performance ensure that the information supplied is sufficient to demonstrate the performance of all the products for which applications are being made.		
1.1 **Does your product conform to the requirements of The Pressure Equipment (Safety) Regulations 2016 in respect of its design, manufacture and testing procedures?**	☐	☐
1.2 **Does the product have an appropriate Conformity Assessment mark?**	☐	☐
1.3 **Has the product been fitted to a burner and tested at the three test points specified in Table 1 in accordance with the procedures and test conditions in one of the following standards?** *(tick all that apply).*		
a) BS EN 676:2003 +A2:2008 (gas-fired burners).		☐
b) BS EN 267:2009 +A1:2011 (oil-fired burners).		☐
Where the product's turndown ratio is greater than the minimum required, performance at the 25% and 50% test points may be calculated by linear interpolation of the test results. Where operation at the burner's maximum continuous rated output is not possible, performance at the 100% test point may be determined by extrapolation of test data at two additional test points (e.g. 70% and 90%).		

1.	Product testing and certification (continued)	No	Yes

1.4 **How was the product(s) performance tested?** *(Please select one).*

a) Tested in the manufacturers in-house laboratory, in accordance with a registered Quality Management System (i.e. 'self-tested'). ☐

b) Tested in the manufacturer's in-house laboratory, in accordance with a registered Quality Management System and a representative sample of the test data has been cross-checked and verified by an independent body (i.e. 'self-tested and verified or cross-checked by an independent body') ☐

c) Tested in a laboratory either in house or on-site, witnessed by an independent body (i.e. 'witnessed testing'). ☐

d) Tested by an independent laboratory (i.e. 'independent testing'). ☐

e) Acceptance Tests or Field Trials ☐

Please refer to the ETL Testing Framework for details of the requirements that must be satisfied for each of these product testing options.

1.5 **Where product testing has been done in accordance with a registered Quality Management System, what is its registration number?**

.....

1.6 **Where a representative sample of the test data has been cross-checked and verified by an independent body:**

a) What is the name of the independent laboratory?

.....

b) What is the laboratory's registration number (where accredited)?

.....

1.7 **Where product testing has been witnessed by an independent body, what was the name of the witness?** *(Please include contact details).*

.....

.....

1.8 **Where products have been tested by an independent laboratory:**

a) What is the name of the independent laboratory?

.....

b) What is the laboratory's registration number (where accredited)?

.....

2.	Product features	No	Yes

2.1 **Is the product a microprocessor based control unit?** ☐ ☐

2.2 **Is the product designed to:**

a) Control one or more forced draught, gas and/or oil fired burners? ☐ ☐

b) Use a precision servomotor to adjust any mechanical airflow dampers and/or modulating gas valves that control the air-fuel ratio of the burners controlled? ☐ ☐

c) Control each precision servomotor by means of a positional or flow based feedback mechanism that automatically adjusts its operation to correct for mechanical wear, valve stiction and hysteresis? ☐ ☐

d) Where the burners being controlled are gas fired, use a variable speed motor drive or controller to operate the burners' forced draught fans. ☐ ☐

e) Fully close the air dampers of the burners on shutdown. ☐ ☐

3. Product performance	No	Yes

3.1 Does the product automatically respond to changes in heat demand by modulating burner output:

a) In a continuous manner across a minimum specified turndown ratio of 4:1? ☐ ☐

b) Whilst adjusting the ratio of air and fuel fed to the burner in a manner that maintains combustion efficiency across the required turndown range and complies with the maximum permitted levels of oxygen (O_2) and carbon monoxide (CO) in the burner's exhaust gases at the test points set out in Table 1. ☐ ☐

Table 1 *Minimum performance requirements for retrofit burner control systems*

Maximum O_2 level at test point			Maximum CO level
100% MCR	**50% MCR**	**25% MCR**	**All test points**
3%	4%	5%	20 ppmv

Where MCR is the product's maximum continuous rating.

4. Summary of documents to be included

No	Yes

Please send ONE copy of each of the following documents:

If the relevant information in support of the questions above is contained within a larger document, please indicate the location of the relevant information. Note that all documentation submitted must directly refer to the model numbers for which you are making this application. Documentation should be added to your online application.

a) A technical sales brochure or leaflet for the product clearly summarising:

- i) The key features of the product (ideally including photographs of the product's exterior). ☐
- ii) The product's operation (i.e. in-built functionality) and intended applications (i.e. usage). ☐
- iii) Any product selection options (including optional extras, alternative configurations etc.). ☐

This documentation should contain sufficient detail to enable the assessor to confirm that the proposed entry on the Energy Technology List (ETL) is correct, and uniquely represents a single product of fixed design (as defined by the rules of the ETL Scheme). If the model names contain any 'wildcards' in respect of cosmetic variations please check with ETL Questions that this is permitted before submitting your application.

b) A technical specification for the product, including:

- i) Details of the model numbers covered (including individual features of each model). ☐
- ii) The product's design ratings (electrical, mechanical, thermal, flow rates, energy use etc.). ☐
- iii) A description of how to install the product including connection/wiring diagrams. Where the product must be assembled, configured and/or commissioned on site before use, please include instructions. ☐

This documentation should contain sufficient detail to enable the assessor to confirm that each product entry on the Energy Technology List (ETL) has the design features specified in the eligibility criteria for that category of product. Please indicate on the checklist where information on specific design features is located in the documentation.

c) Please ensure that this documentation includes details of:

- i) The product's control input/output signals, and requirements for sensors or control valves. ☐
- ii) The product's automatic control strategies, mechanisms, and configuration settings. ☐

d) Evidence that the product meets the performance criteria, including:

- i) Test reports showing product performance at the standard rating/test conditions. ☐
- ii) Details of the test procedures/standards used to determine product performance. ☐
- iii) A declaration certifying the accuracy of the test reports and confirming that:
  - The test facilities used comply with the minimum specifications outlined in the test standard, and the required test conditions where applied during testing. ☐
  - All measurement equipment used in testing was calibrated by an accredited laboratory, or its calibration is otherwise traceable back to national standards. ☐
  - Appropriate quality assurance procedures have been used to verify or cross-check the accuracy and repeatability of the test procedures and test results. ☐

Please note that summary test reports will only be accepted, where the accuracy of the test reports has been certified by a recognised independent body, or where two detailed test reports have been submitted per product range and per laboratory used.

Please refer to the ETL Testing Framework for further guidance on the submission of test results, and minimum information requirements.

e) A Declaration of Conformity with UK/EU Directives on product safety, including one of the following:

- i) An appropriate Conformity Assessment. ☐
- ii) The Pressure Equipment (Safety) Regulations 2016. ☐

f) Evidence that a quality assurance system/procedures is/are in place to:

- i) Control the specification, design, manufacturing and testing of the products. ☐

g) Signed application checklist. ☐

Please note that all product documentation provided must be written in, or translated into, English.

5. Declaration

I confirm that the information given above is correct to the best of my knowledge and that I have read and agree to the terms and conditions governing the management of the Energy Technology List.
A copy of the terms and conditions can be found **here**.

Signature: ..... Date: .....

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