ofgem e-serve Making a positive difference for energy consumers

Renewable Heat Incentive

Non-domestic Renewable Heat Incentive Emissions Certificate

This certificate provides evidence that the tested boiler meets the air quality requirements of the non-domestic Renewable Heat Incentive (RHI). It must be issued by a testing laboratory. Applicants applying for the RHI with biomass boilers must submit a certificate with their application, or alternatively, an environmental permit.

BLT 0760/13, Lindner & Sommerauer, SL 80 T to SL 110 T, chipped wood

1. TEST HOUSE	
a) name and address of testing laboratory	research & testing BLT Wieselburg F | J lfz Wieselburg **BLT Wieselburg** HBLFA Francisco Josephinum AT 3250 Wieselburg, Rottenhauser Straße 1 blt@josephinum.at, http://blt.josephinum.at Höhere Bundeslehr- u. Forschungsanstalt * Francisco Josephinum * Schloss Weinzierl - 3250 Wieselburg
b) name and signature of the person authorised by the testing laboratory to issue the certificate	For the accredited test institute: Dipl.-Ing. Heinrich Prankl For the factual correctness: Dipl.-HLFL-Ing. Leopold Lasselsberger
c) date of issue of the certificate together with certificate reference number Plant 1 – SL 80 T Plant 2 – SL 99 T Plant 3 – SL 110 T	Date of issue: 04/12/2013 Reference number: 0760/13 BLT Wieselburg test report, approval no: 018/99 BLT Wieselburg test report, approval no: 017/99 BLT Wieselburg test report, approval no: 019/99
d) if testing laboratory is accredited to ISO 17025, date of accreditation and accreditation number *(note: if testing conducted after 24 Sep. 2013, the testing laboratory must be ISO 17025 accredited)*	A 0112 Date of accreditation: October 19, 2009 Initial date of accreditation: September 1, 1998 Federal Ministry of Economy, Family and Youth Division I/12 – Accreditation Body

2. PLANT	Plant 1	Plant 2	Plant 3
a) name of the plant tested	SL 80 T	SL 99 T	SL 110 T
b) model of the plant tested	Chipped wood heating boiler SL 80 T	Chipped wood heating boiler SL 99 T	Chipped wood heating boiler SL 110 T
c) manufacturer of the plant tested	Lindner & Sommerauer SL-Technik GmbH Bergwerkstraße 4 AT 5120 St. Pantaleon		
d) installation capacity of the plant in kilowatts (kW)	80,0	99,0	110,0
e) is the plant a manually stoked, natural draught plant? (that is, without a fan providing forced or induced draught)	no	no	no
f) the date the plant was tested	08/02/1999	08/02/1999	08/02/1999
g) list of all the plants in the type-testing range of plants to which the certificate applies, if any[1]	Chipped wood heating boiler SL 80/99/110 T		

3. FUELS	
a) types of fuels used when testing	Chipped wood B1 according to EN 303-5
b) based on the testing, list the range of fuels that can be used in compliance with the emission limits of 30 grams per gigajoule (g/GJ) net heat input for particulate matter (PM), and 150 g/GJ net heat input for oxides of nitrogen (NOx) *(based if relevant on classifications from EN 14961 or EN 303-5)*	Chipped wood B1 according to EN 303-5
c) moisture content of the fuel used during testing Plant 1 – SL 80 T Plant 2 – SL 99 T Plant 3 – SL 110 T	 25,2 – 26,0 % 26,0 – 28,9 % 26,0 – 28,9 %
d) maximum moisture content of the fuel which can be used so as to ensure that the emission limits are not exceeded	≤ 35 % according to EN 303-5

[1] The type-testing approach enables testing laboratories to provide assurance that all boilers in a given range meet the air quality requirements, without needing to specifically test each boiler.

4. TESTS	
a) **if the plant is 500 kW or lower, and BS EN 303-5:1999 or EN 303-5:2012[2] applies to it,** please confirm: - tests were conducted to whichever standard was current at the time of testing. *(please circle the applicable standard)*	EN 303-5:1999
b) **if the plant is 500 kW or lower, and BS EN 303-5:1999 or BS EN 303-5:2012 <u>do not apply to it</u>,** please confirm: - emissions of PM represent the average of at least three measurements, each of at least 30 minutes duration and; - the value for NOx emissions is derived from the mean of measurements made throughout the PM tests.	not applicable not applicable
c) **if the plant is 500 kW or higher**, please confirm: - emissions of PM represent the average of at least three measurements, each of at least 30 minutes duration and; - the value for NOx emissions is derived from the mean of PM measurements made throughout the PM tests.	not applicable not applicable
d) please confirm the tests were conducted to: - EN 14792:2005 in respect of NOx, and; - EN 13284-1:2002 or ISO 9096:2003 in respect of PM[3]	yes yes
e) please confirm the plant tested at ≥ 85 % of its rated output	yes
f) please confirm the tests show that emissions were no greater than 30 g/GJ PM and 150 g/GJ NOx	yes
g) measured emissions of PM in g/GJ net heat input	
Plant 1 – SL 80 T	7 g/GJ (nominal heat output) nm*) (minimum heat output)
Plant 2 – SL 99 T	9 g/GJ (nominal heat output) nm*) (minimum heat output)
Plant 3 – SL 110 T	9 g/GJ (nominal heat output) nm*) (minimum heat output)
h) measured emissions of NOx in g/GJ net heat input	
Plant 1 – SL 80 T	93 g/GJ (nominal heat output) nm*) (minimum heat output)
Plant 2 – SL 99 T	104 g/GJ (nominal heat output) nm*) (minimum heat output)
Plant 3 – SL 110 T	104 g/GJ (nominal heat output) nm*) (minimum heat output)

*) nm ... not measured

[2] BS EN303-5:1999 and 2012 explain what should be measured and when.
[3] These standards explain how to make the PM and NOx measurements.