

OFTEC TECHNICAL BOOK THREE REGIONAL REQUIREMENTS

Minimum Provision for New Systems in New and Existing Dwellings

For oil fired boilers installed on or after April 2007:

- All oil fired boilers shall have SEDBUK efficiency of not less than 86% and be of the condensing type.

For range cooker boilers (as per the Department of Communities and Local Government for England and Wales, Domestic Heating Compliance Guide):

- All oil fired range cooker boilers should have an efficiency greater than 75%*
- * As declared on www.rangeefficiency.org.uk

Appliance minimum SEDBUK efficiencies on new build properties form part of the SAP calculation process, it is therefore important that the appliance efficiency utilised (as specified by the builder, developer, architect or consultant) is matched to this requirement. No variation to this should take place without prior consultation and agreement of the specifier.

Systems for space and domestic hot water are required to have:

- Primary circuits of the fully pumped type with full boiler controls, interlock and zones.
- An automatic bypass valve as required by the appliance manufacturer's installation instructions.
- Vented hot water cylinders complying with the heat loss and heat exchanger requirements of BS 1566.
- Un-vented hot water storage systems complying with BS 7206 or be certified by the British Board of Agrément or equivalent approval.
- Been thoroughly cleaned and flushed using an appropriate inhibitor.
- Water treatment provided in hard water areas.
- All appliances, systems and associated equipment fully commissioned in accordance with manufacturer's instructions.

Minimum Provision for Replacement Systems in Existing Dwellings

For oil fired boiler replacements not involving a fuel or energy switch:

- As defined above
- The SEDBUK efficiency should not be worse than 2 percent lower than the SEDBUK efficiency of the appliance being replaced.

NOTE: If the efficiency of the system or appliance is not known, efficiency values can be taken from table 4a or 4b of SAP 2005.

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For appliance replacements involving a fuel or energy switch (e.g the replacement of an LPG boiler with an oil boiler):

- The seasonal efficiency (SEDBUK) of the proposed appliance should not be less than that as defined above.
 - The proposed appliance's equivalent seasonal efficiency must be greater than the existing appliance's seasonal efficiency (SEDBUK) minus maximum 2 percentage points maximum allowance*.
- * For further information and guidance when replacing other fuelled appliances with oil fired appliances see OFTEC publication "A Guide to Replacement Appliance Efficiencies" to be advised.

When replacing appliances the existing system should be (where not already) upgraded to:

- Primary circuits of the fully pumped type with full boiler controls, interlock and zones.
- An automatic bypass valve as required by the appliance manufacturer's installation instructions.
- Been thoroughly cleaned and flushed using an appropriate inhibitor.
- Water treatment provided in hard water areas.
- All appliances, systems and associated equipment fully commissioned in accordance with manufacturer's instructions.

When replacing hot water storage systems they should be (where not already) upgraded to:

- Vented hot water cylinders complying with the heat loss and heat exchanger requirements of BS 1566.
- Un-vented hot water storage systems complying with BS 7206 or be certified by the British Board of Agrément or equivalent approval.

Means of Ventilation

Where combustion and/or ventilation air supplies are to be provided for appliances in properties built or refurbished to Technical Booklet F1 (November) 2006 air leakage rates, it is strongly recommended that the first 5kW of appliance rated output is no longer omitted (for adventitious air) in the calculation process.

Example 1

Property built pre TBF1 (November) 2006.

Appliance rated output = 17kW
Less 5kW allowance = 12kW
Combustion air supply = 12kW x 550mm²

Example 2

Property built post TBF1 (November) 2006.

Appliance rated output = 17kW
Combustion air supply = 17kW x 550mm²



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Conventionally open flued appliances with a rated output of below 5kW should have a minimum combustion air supply of at least 100cm² free area (or equal “equivalent area”).

Conventionally open flued appliances which have either an integral stabiliser (or draught break) or where the primary flue has an integral stabiliser (or draught break) should have an additional 550mm² free area (or equal “equivalent area”) per kW of appliance maximum output rating added to the combustion air allowance. N.B. This additional allowance would not be required when an appliance is installed in a compartment with compliant compartment ventilation.

A full flue interference test must be carried out at commissioning. If flue interference is identified the appliance must not be used, a warning sticker affixed until such times as permanent remedial works have been carried out and have been proven to prevent flue interference so that the appliance can be left operating in a safe manner.

Oil Storage Tank Installation

- Regulation L7 requirements for environmental protection can be met by completing OFTEC form TI/133D. Where secondary containment is required a prefabricated integrally banded oil storage tank should always be installed.
- For non-domestic oil storage tanks a new regulation (The Control of Pollution (Oil Storage) Regulations (Northern Ireland) 2006) is due to be introduced. It is proposed that:
 - Non-domestic oil storage tanks that are above 200 litres will be required to have secondary containment.
 - Any domestic oil storage tanks that are above 3500 litres will be required to have secondary containment.

The implementation of these proposed regulations will be advised once they are published. It is recommended that the guidance contained in section 4.4 of this book is followed until these regulations are enacted.

- Domestic oil storage tank installations under 3500L are required to be a minimum of 750mm away from a boundary, if this cannot be achieved a firewall as described in section 2.5 of this book should be provided.

Agricultural Fuel Storage

From 1st December 2003, the SSAFO (Silage, Slurry and Agricultural Fuel Oil) Regulations for Northern Ireland require any new or substantially altered agricultural fuel store with a capacity of greater than 1,250 litres to be:

- Constructed and banded to the appropriate specification; and
- Notified to NIEA (Northern Ireland Environment Agency) at least 28 days in advance of the installation being bought into use.

Bunds should be sized according to the quantity and capacity of oil storage facilities. For example, a single storage tank requires a bund capable of holding 110% of the tank capacity. The Regulations allow the use of existing oil tanks to continue. However, the NIEA are empowered to inspect tanks on farms. Existing installations that are considered to present a pollution problem can be served with a notice, which requires work to be undertaken or precautions implemented to reduce the risk of pollution to watercourses or groundwater.

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Above ground fuel tanks and areas storing oil drums must be:

- Surrounded by an impermeable bund (if not of the integrally banded type), likely to last 20 years and sited a minimum of 10 metres away from any watercourse.
- Arranged so that any permanently fixed valves or taps empty vertically downwards into the bund and shall be shut and locked in that position when not in use.
- Fitted with an automatically closing valve or tap at the end of any flexible pipe used for filling vehicles.
- Located so as to reduce to a minimum the risk of fire.
- Constructed to the relevant OFTEC Standard (OFS T100 for plastic tanks and OFS T200 for steel tanks).
- Adequately supported on a permanent base.
- Protected from damage by vehicles.
- Provided with a visible sight glass or contents gauge to prevent over filling.
- Fitted with a shut-off valve next to the tank if it supplies a grain dryer or other fixed equipment.
- Fitted with an anti-syphon device if the tank inlet is lower than the highest level of fuel in the tank.
- Fitted with outlet valves marked to show whether they are open or closed.

Electrical Works

It is recommended that all electrical works are carried out to BS 7671.

Contact Details

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| To report a pollution incident contact the Water Pollution Hotline | 0800 80 70 60 |
| The Department of Finance and Personnel | www.dfpni.gov.uk |
| Northern Ireland Environment Agency | www.ni-environment.gov.uk |

