

Annex B:

Response Form

The purpose of this form is to help consultees marshal their thoughts and to facilitate collation and analysis of the many responses that are expected.

In answer to each question consultees can choose to tick boxes and/or to provide suggestions and observations in more detail. In particular, if you disagree with any proposal, please add comments and provide practical alternatives. It is not essential to form a view against every question – respond only where you wish.

The list of questions is not exhaustive, and there is no intention to discourage consultees from expressing views “outside the box”. The last question is completely open to enable consultees to make suggestions or observations that do not fit into the preceding format.

We would prefer replies by email. To this end, an editable version of the consultation questionnaire can be downloaded from the “Proposals for amending Part J of the Building Regulations” link at www.communities.gov.uk/consultations

Alternatively, please return hard copies of the completed questionnaire along with any material that you feel would add usefully to your response.

Proposals for amending Part J of the building regulations: consultation

Respondent Details:	
<p>Name:</p> <p>Alan Black</p>	<p>Please return by: 26 November 2009</p> <p>Responses should preferably be submitted by email to:</p> <p>adjresponses2009@bsria.co.uk</p>
<p>Organisation:</p> <p>OFTEC</p>	<p>Alternatively, hard copy responses should be sent to:</p>
<p>Address:</p> <p>Foxwood House Dobbs Lane Kesgrave Ipswich IP5 2QQ</p>	<p>Gerald McInerney Sustainable Buildings Division Department for Communities and Local Government Zone H9 5th Floor Eland House Bressenden Place London SW1E 5DU</p>
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<p>Are you responding as an individual? Or are you representing the views of an organisation?</p> <p>This submission is submitted for and on behalf of the Oil Firing Technical Association Ltd.</p> <p>If you are responding on behalf of an organisation, please say who the organisation represents and, if applicable, how the views of members have been assembled.</p> <p>The Oil Firing Technical Association Ltd has circa 150 member companies involved in the Oil Firing industry including oil related equipment manufacturers, fuel suppliers and other industry stakeholders. OFTEC also operates a registration scheme for circa 10,000 oil firing operatives.</p> <p>The views of industry are collated from industry consultation via general and specific meetings and general and specific communication requests.</p>	

Is your response confidential? If so please explain why. (See disclaimer on page 13)

Yes No

Comments:

Provision is made throughout this questionnaire for you to make additional comments. If, however, you wish to provide more detailed comments on any aspect of the consultation then please feel free to append additional materials and supplementary documents, clearly marked and cross referenced to the relevant questions, as necessary.

Organisation Type (tick one box only)			
House or property developer	<input type="checkbox"/>	Local authority – Planning	<input type="checkbox"/>
Commercial developer	<input type="checkbox"/>	Local authority – Other (please specify)	<input type="checkbox"/>
Housing association (registered social landlord)	<input type="checkbox"/>	Approved Inspector	<input type="checkbox"/>
Property management: Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Public sector <input type="checkbox"/>		Professional body or institution	<input type="checkbox"/>
Builder – Main contractor (commercial/volume house builder)	<input type="checkbox"/>	Trade body or association	<input checked="" type="checkbox"/>
Builder – Small builder (repairs/maintenance, etc)	<input type="checkbox"/>	Householder: Homeowner <input type="checkbox"/> Tenant <input type="checkbox"/>	
Builder – Specialist sub-contractor	<input type="checkbox"/>	Energy sector: Generation <input type="checkbox"/> Transmission <input type="checkbox"/> Distribution <input type="checkbox"/> Supplier <input type="checkbox"/> Energy service company <input type="checkbox"/>	
Manufacturer	<input type="checkbox"/>	Other non-governmental organisation	<input type="checkbox"/>
Architect	<input type="checkbox"/>	Specific interest or lobby group	<input type="checkbox"/>
Civil/structural engineer	<input type="checkbox"/>	Research/academic organisation	<input type="checkbox"/>
Consultancy	<input type="checkbox"/>	Journalist/media	<input type="checkbox"/>
Individual in practice, trade or profession	<input type="checkbox"/>	Development funder	<input type="checkbox"/>
Local authority – Building control	<input type="checkbox"/>	Other (please specify):	<input type="checkbox"/>
Geographical Location			
England	<input type="checkbox"/>	Wales	<input type="checkbox"/>
England and Wales	<input checked="" type="checkbox"/>	Other (please specify)	<input type="checkbox"/>

Air supply for combustion in air tight homes

1. Do you agree that the provisions for Air supply in Approved Document J (AD J) need to be modified for very air tight buildings?

Yes No Don't know

2. Do you agree that adventitious ventilation (e.g. uncontrolled ventilation through gaps cracks and joints in the building fabric) should be ignored in dwellings where the design air permeability is less than 5.0 m³/hr/m²?

Yes No Don't know

Note: The Department has commissioned further research to look into this issue. Please append to your reply any technical information you may have that would contribute to this research.

Comments

Whilst agreeing with the concept, the proposal raises a question with regard to the practicality of application. The question raised is, how will an installer know the measured or declared air permeability of a property either initially or more importantly in years to come - during the life of the building?

The current practical field guidance adopted by OFTEC is to include the first 5kW of appliance rated output when calculating combustion and ventilation air supply requirements in all post ADL1A 2006 properties, with the 5kW allowance being deemed applicable to pre ADL1A 2006 constructed properties.

3. The Current guidance in Approved Document J provides for ventilators to be specified in terms of their free area or equivalent area. The Department is also currently consulting on proposals to amend Part F (Ventilation) of the Building Regulations which includes a proposal to specify ventilators in terms of equivalent area only.

Do you agree that ventilators provided for compliance with Part J should be specified in terms of their equivalent area?

Yes No Don't know

Comments

Although recognised as a new standard means of assessment of ventilators the equivalent area is impracticable to apply to air bricks, grills or louvres in the field where such an item does not have its "equivalent area" clearly,

permanantly and visibly marked.

The method of measuring actual "free area" of a ventilator enabled a technician, installer or approved inspector to be able to simply and practically assess the suitability of installed ventilation - for example for combustion purposes - against the requirements of the installed plant.

Note: **Equivalent area** is a measure of the aerodynamic performance of a ventilator. It is the area of a sharp-edged orifice which air would pass through at the same volume flow rate, under an identical applied pressure difference, as the opening under consideration.

4. In the light of increasing standards for air tightness do you think that the current diagram 12 in AD J (provision of ventilator communicating with a roof space) should be deleted?

Yes No Don't know

Better guidance on Biofuel technology

5. Is the proposed definition of solid biofuel: "Solid biofuel is derived from plants and trees. It can include logs, wood chips, wood pellets and other processed plant material" appropriate and accurate for the purpose of AD J (see para 0.4 40).?

Yes No Don't know

If your answer is No, please make suggestions for an alternative definition.

As far as we are aware the common adopted terminology across Europe for fuels derived from renewable sources is:

"biomass" where the fuel utilised is in a solid state such as wood pellets;

"biogas" where the fuel utilised is in a gaseous state

&

"bioliquid" where the fuel utilised is in a liquid state such as FAME to EN 14213 / EN 14214.

6. Do you agree that guidance on solid biofuel appliances should be incorporated into the guidance for solid fuel appliances in Section 2 of ADJ and that a separate section on biofuels is not necessary?

Yes No Don't know

Comments

We agree that all applicable mineral and bio fuel options should be incorporated within the existing sections of ADJ based upon their used physical state such as solid, gaseous or liquid.

7. Do you agree that flues of less than 125 mm diameter be permissible for solid biofuel boilers where recommended by the appliance manufacturer and supported by calculation?

Yes No Don't know

Comments

We have no specific area of expertise with regard to "solid" biomass boilers and their flue systems.

Generally however with the onset of new and evolving appliance technologies - across all fuel sectors - appliance manufacturers will need to be able to match and specify flue systems appropriately for their equipment.

8. Do you agree that appliance manufacturers should be able to recommend alternative separation distances for products that have been tested and proven to conform to appropriate standards for low surface temperatures?

Yes No Don't know

Comments

For example oil fired boilers to OFS A100 have integral - low temperature hearths and case temperatures.

Carbon monoxide alarms

9. Do you agree that CO alarms should be provided where new solid fuel appliances are installed?

- Yes – All solid fuel appliances
- Yes – But not for appliances that are effectively room sealed
- No
- Don't know

10. Do you think that CO alarms should be provided in conjunction with all combustion appliances?

Yes No Don't know

If your answer is yes, please provide any supporting evidence you have for your view especially in relation to the potential costs and benefits.

In general terms there appears to be little benefit of mandating the fitment of CO alarms in situations where the combustion process or gasses are not open to the dwelling space. However where an installation type or product has a known / proven risk then not taking steps to address said risk could be deemed to be negligent.

11. Do you agree with the proposed specification of CO alarms i.e. conforming to BS EN 50291 and provided with lifetime batteries?

Yes No Don't know

If your answer is no please suggest why and offer an alternative specification

12. It could be argued that if hazardous appliance faults are more likely outside of the first six years of the life of the appliance (i.e. after the lifetime of the CO alarm), and if the CO alarm is only installed alongside a new appliance then the benefit of the alarm may be low. The Department would be particularly interested to hear from respondents if they have any views or information in this regard.

Comments
We have no specific view on this matter.

Concealed flues

13. Do you agree that ADJ should include detailed guidance on provisions for the inspection of concealed flues?

Yes No Don't know

Comments

Current guidance calls for inspection points in flue and chimney systems so it appears sensible that such prescribed inspection points are accesable.

14. Do you agree with the draft guidance on inspection for concealed flues (paragraph 146a) and Diagram 14?

Yes No Don't know

Comments

A "flue" by definition may not in itself be inspectable in the manner implied when contained within a concentric flue system for example as part of an oil fired appliance's balanced flue system. Access provision by way of a constructed inspection hatch would in these cases only enable a visual inspection of the outer combustion air supply duct within which the flue system is contained.

Such proposals may well be appropriate for other flue types.

If your answer is No, please make suggestions for alternative text.

Concentric flue systems such as those provided as part of an oil fired balanced flued appliance should be provided with or made accesable where and as defined by the equipment manufacturer.

Plumbing from condensing boilers

15. Do you agree that an advisory note on flue nuisance is helpful?

Yes No Don't know

16. Do you agree that a reference to the recommended minimum separation distances in Chapter 6 of the Guide to the Condensing Boiler Installation Assessment Procedure for Dwellings is appropriate?

Yes No Don't know

Comments

Reference should be made in Section 4 to BRE Document CE29 and OFTEC Technical Book 4 (2010) for best practice guidance on the siting of oil fired condensing appliance flue terminations for the avoidance of plume nuisance.

Flues and adjacent pitched roofs

17. Do you agree with the proposed clarification of Diagrams 17 & 41?

Yes No Don't know

Comments

"Yes" RE: Diagram 41.

OFTEC welcomes the additional clarification referencing manufacturers instructions for verticle balanced flue terminations.

An addition to end of Note 1 is required: "This guidance is equally applicable to externally located floor standing and wall mounted appliance flue terminations."

An additional Note for location F is required as follows: "Excepting where the flue termination directs the products of combustion directly away from the internal or external corner or surface or boundary in accordance with manufacturers instructions."

An additional Note for location N is required as follows: "Excepting where the flue termination directs the products of combustion directly away from the verticle structure on the side of the terminal in accordance with manufacturers instructions."

Please note that there appears to be a typographical error for flue location G which reads "3000" and should read "300".

Please note that the detail contained in Diagram 35 has previously been adopted for use by the oil industry to address similar concerns as encountered by the gas industry. To this end we would wish to propose that either the guidance in Diagram 35 is added to Diagram 41 or that Diagram 35 is reproduced for oil installations alongside Diagram 41 in Section 4.

If your answer is No, please make suggestions for an alternative.

Clarification text is required that the guidance on terminal locations are for safety both for condensing and non-condensing appliances to prevent the ingress of noxious gasses entering buildings or structures or stagnating around same.

Additional guidance is required for the avoidance of Plume Nuisance (see 3.23) with reference made to BRE Document CE29 and OFTEC Technical

Book 4 (2010) for best practice guidance on the siting of oil condensing appliance flue terminations.

Bunding of domestic oil tanks

18. Do you think that the risk based approach to bunding of domestic oil tanks should be replaced with a provision applying all tanks?

Yes No Don't know

Comments

The Risk Assessment process as adopted in 2002 has regretablely been proven to be flawed with regard to effective protection of the environment, legal compliance, practicality, application and enforcement - please see attached paper OFTEC ADJ02 and paper OFTEC ADJ03.

If your answer is yes can you provide any evidence that would show that such a provision would be cost effective?

OFTEC notes that the Impact assessment asumptions are flawed - see answer to Q24. We fully acknowledge and support the submissions on this matter from the Environment Agency.

19. The department would be interested in suggestions of alternative regulatory or non-regulatory options for improving the protection of the environment from domestic oil storage tanks.

Comments

OFTEC has since the introduction of requirement J6 in 2002 sought ways and means of addressing concerns highlighted by the adoption of the "no risk unless one is identified" approach - it is worthy of note that BS 5410 Part 1 1977 had for 20 years in place a system of Risk Assessment which meant that secondary containment should only have be ommitted where no risk was proven - the result of this was that secondary containment was ommitted as no risk could be seen or identified at time of the risk assessment survey. Thus - as detailed in our supporting document OFTEC ADJ02 - the process of

identifying where there is no risk has proved latterly to be as equally flawed as the process of identifying where there is risk, again due to the very nature of carrying out a visual onsite Risk Assessment.

It is a fact of life that end users of oil storage facilities do not replace oil storage tanks until they have failed - a distressed purchase. At this point fuel has been allowed to escape to the environment. All containment vessels will one day come to the end of their useful life irrespective of design and material of construction. Unless physical measures are designed into an installation to contain lost fuel the environment will continue to be polluted.

Exempt buildings

Combustion appliances and flues can be installed in buildings that are exempt from the requirements of Part J (and most other parts) of the Building Regulations. These exemptions are set out in Schedule 2 of the Regulations and include certain conservatories, garages and ancillary boiler houses. Some stakeholders have suggested that these exemptions should be changed or removed to ensure that all such installations are controlled.

20. Do you agree that the provisions of Part J should be extended in scope to include some or all buildings where combustion appliances may be installed that are currently exempt?

Yes No Don't know

Comments

The requirements which are applied on grounds of safety such as fire and stagnation of products of combustion are equally applicable to all combustion appliances wherever they are installed.

Flue notices

Some stakeholders have suggested that there is limited compliance with the requirement for flue notices other than for masonry chimneys and fireplaces.

21. Do you think that the existing provisions for flue notices are adequate?

Yes No Don't know

Comments

22. Do you think that the provisions for flue notices should be limited in scope to only to masonry chimneys and fireplaces?

Yes No Don't know

Comments

Specifically as this was the intended application around which the requirements were written. It is inappropriate to apply same to other applications. We believe that limited compliance is as a direct result of

installers identifying the inappropriateness of application.

Gas Pipes

23. The Health and Safety Executive have published a Preliminary Consultation on the recommendations contained in the Gill Report on the 2004 ICL Plastics explosion. This consultation includes a reference to the potential to amend building regulations to prohibit the use of LPG pipework through an unventilated void.

If this is considered necessary, the Regulations could either be extended to control the installation of gas pipes or informative text could be included in the Approved Document to alert the reader to existing gas safety provisions.

In respect of provisions for the installation of gas pipes in buildings which option do you support?

- A) Amend the Building Regulations and include guidance on gas installation in Approved Document J.
- B) Include informative text in the Approved Document to alert the reader to the requirements of gas safety legislation and cross reference to existing guidance.
- C) Do nothing.
- D) Don't know.

Comments

No comment.

Note: The HSE consultation and the ICL Inquiry Report can be accessed via the HSE website at www.hse.gov.uk/lpgconsultation/index.htm

Impact Assessment

24. Please enter below any additional suggestions or observations that you would like to make on the Impact assessment for the proposals for amending Part J of the Building Regulations.

Comments

We note with particular concern the Cost-benefit analysis of bunding for overground oil storage tanks.

With regard to the potential cost of a manufacturer "switching" production from single skinned tanks to integrally bunded tanks it should be noted that

integrally banded tanks are in the main an existing production single skinned tank enclosed at point of manufacture within an additional secondary containment system.

We would advise that "N3" is incorrect as existing oil fired appliances and oil storage tanks are replaced as distressed purchases independantly of each other. There is no correlation between the replacement of an existing oil fired appliance and the replacement of an oil storage tank.

We would raise as a point of note with regard to the number of pollution incidents reported that the Oakdene Hollins report clearly stated that 70% of incidents are not reported although they do have environmental and financial impact consequences.

For further detailed financial analysis please refer to the Environment Agency's, Clarehill Plastics Ltd and the Kingspan group consultation responses on this matter - which OFTEC fully supports.

General suggestions and observations

25. Please enter below any additional suggestions or observations that you would like to make on the proposals for amending Part J of the Building Regulations.

Comments

We submit the following comments by way of update and ammends in relation to changes in equipment and practices and other Approved Documents since 2002 and to items not covered by the previous questions which have arisen as a result of the full review of the consultation package.

Chapter 2, The Requirements (page 25):

We bring to your attention that Requirement J6 has a limitation of application to 3500 litres and to domestic dwellings. Dwellings with oil storage capacities in excess of 3500 litres and non-dwelling applications fall within the scope of the Control of Pollution (Oil Storage) Regulations (England), however as this is only enforcable in England this leaves an anomoly/ommission in the guidance with regard to installations of this type in Wales. To address this in the meantime we would recomend that for installations of this nature in Wales reference should be made to BS 5410 part 2.

We are very concerned that despite previous submissions that the scope of J6 continues to exclude oil storage tanks:

1. installed within buildings;

Secondary containment is nescesery for oil storage tanks installed within buildings to protect the built environment, penetration of contaminants to the natural environment and to prevent any loss of fuel creating an additional fire risk within the building or structure within which the oil storage tank is contained. This is of increased concern where flammable liquids (flash point of 55C or below) such as C2 kerosene (flash points as low as 38C) are utilised (Ref HSG 176). The ommission of such applications leads to a compromise of the intentions of requirement J5.

2. installed in a building which is not used wholly or mainly as a private dwelling;

This then by ommission fails to recognise - and puts the Building Regulations safety concerns for non-dwellings at difference to - HSE Guidance HSG 176. An identified anomoly here is that "incinerators" installed in a private dwelling (which we are yet to see) are included? Again the ommission of such applications leads to a compromise of the requirement J5.

3. which are buried;

Buried oil storage tank systems are deemed to be the greatest risk to the environment due to the nature of their enclosure which can prohibit both routine and casual visual inspection of integrity. The Environment Agency and OFTEC recognise and acknowledge that the use of underground oil storage should not be prohibited but where it is utilised the Environment Agency have produced specific guidance so as to provide protection to the environment (Ref PPG 27). Oil storage facilities which are to be located underground can achieve environmental protection either by being designed and manufactured with integral means of protecting the environment (such as PPG 27 or equal performance related alternative manufactured solutions) or by the location of a single skinned oil storage tank within a constructed underground oil tank chamber which provides secondary containment.

Section 0, General Guidance.

Explanation of terms used - 0.4.

6. p29. - The "capacity" of an oil storage tank as stated is more correctly its nominal capacity which is 95% of its brimfull capacity.

13. p31. - The second sentence is out of date and should be reworded so as to be non fuel/application specific as it is defining a chimney term/descriptor and not the chimney's application.

40. p37. - revise definition of 40 to Bio-mass and add new 41. Bio-liquid and new 42. Biogas.

Section 1, Provisions which apply generally to combustion installations.

1.16. p44. - add ", in" after closure of scnd set of bracets, then delete "," after words "noisy areas".

1.20. p45. - 5th line delete word "gas" between words "open-flued" and "appliances" as this can be applicable to oil fired open flued systems incorporating a draft break or stabaliser.

1.20. b. p46. - Delete all text and replace with:

"For oil fired appliances: where a room or space containing an open-flued pressure jet appliance, the extract rate of any installed extract fan should not exceed 40 litres/second; & where a room or space containing an open-flued vapourising appliance, the extract rate of any installed extract fan should not exceed 20 litres/second. A flue draught interference test as described in OFTEC Technical Books 2, 4 & 5 (2010) should then be

carried out." Then follow with "Note: Where flue draught interference is still identified it may be necessary to add additional ventilation air to the room or space containing both an extract fan and an open-flued oil fired appliance as described in OFTEC Technical Book 4 (2010)."

1.28. a. p48. - OFTEC has previously questioned the use of Ordinary Portland Cement (OPC) when backfilling around a liner in previously used masonry chimneys where high sulphur residues exist (such as may be found in an old chimney previously used for many years with coal burning). Sulphate Resisting Portland Cement (SRPC) may be recommended for consideration.

Also it has previously been brought to our attention that some flexible flue liner manufacturers products are designed to be naturally ventilated between liner and chimney and should not be backfilled.

1.40. p51. - 2nd line add text "properties of the products of combustion of the" after text "made to suit the". 4th line add text ", neither should a liner be installed with any part of same outwith the confines of a chimney" between "of a new chimney" and ".".

Section 4, Additional provisions for oil burning appliances with a rated output up to 45kw.

Change title to read "Additional provisions for oil and bio-liquid combustion appliances with a rated output up to 45kW".

4.1. p98. - Change text to read "This guidance is relevant to combustion installations designed to burn liquid fuels meeting the specifications for Class C2 (Kerosene) and Class D (Gas Oil) to BS 2869 and bio-liquids to EN 14213 & EN 14214 or blends thereof to OFTEC Product Standard proPS 24."

4.6, 4.7 & Diagram 41 pp100 & 101 - previously commented upon.

4.8. p102. - 2nd line add text "- generally below 2m above ground level" between word "damaged" and ".".

4.10. p103. - Delete second paragraph words "and second hand" as this should now be irrelevant.

4.11 - 4.23 pp 103 - 108 & Table 7. Please note that this information has been superseded in the 2004 & 2008 versions of "Approved Document J: 2002 Edition: Guidance and supplementary information on the UK implementation of European standards for chimneys and flues."

Table 7. p104. - With the increase in availability of data from oil fired condensing appliances and field trials utilising and incorporating bio-liquids

OFTEC has as part of this consultation exercise re-evaluated the guidance in the supplementary guide and include with this submission an updated version of same for inclusion. Please see document OFTEC ADJ01 - Flues & Chimneys 23112009. Generally we would recommend that guidance emphasis should be in relation to condensing appliances.

"Alternative approach" p109. - We would recommend that for installations outside the scope of the Approved Guidance but which still fall within the scope of the requirements that additional reference is made to BS 5410 Part 2.

Section 5, Provisions for liquid fuel storage and supply.

5.1. Performance. p110.

a. - It should be noted that since the introduction of requirement J5 in 2002 there has been an anomaly with regard to the definition of a "building" in relation to fire protection of fuel storage systems which can lead to high risk fire situations. In the primary Building Act a "Building" was deemed to be a "Building or Structure" however within the Building Regulations a "Building" was defined as for example a dwelling house but excluded "structures" as the Building Regulations and approved guidance were not applicable to said "structures" only to "buildings". It is very important to note that in terms of providing fire protection to stored flammable liquids that fires originate in structures such as outbuildings, for example garden sheds and domestic garages, leading to consequential risk to occupants and occupiers of premises. BS 5410 Part 1 however does call for separation/protection of oil storage systems from "a fire which may originate from a building or other source". Many instances of fire spreading to a domestic oil storage system from structures such as garden sheds and garages have and continue to occur annually. In all instances of fire spreading to a fuel containment system - of which we have been made aware - the effects of a fire on the contained fuel storage system would have been seriously reduced had the ADJ "building" guidance been applied to a "structure" as per industry guidance from BS 5410. The aftermath evidence of each incident showed catastrophic failure with the contained fuel adding to the consequences of the original fire where such protection had been omitted.

To address this situation we would strongly recommend that requirement J5 is reworded to read:

"Liquid fuel storage system and the pipes connecting them to combustion appliances shall be so constructed and separated from buildings, structures and the boundary of the premises as to reduce to a reasonable level the risk of the fuel igniting in the event of fire in adjacent buildings, structures or premises."

5.1. a. p110 - should have the text ", structures" added between words

"buildings" and "or" on the last line.

5.1. b. ii. p110 - Please see bunding question text and then remove text "when there is a significant risk of pollution"

5.2. p110. - BS 2869 is correctly 2006, but this is currently under review. We would recomend an undated reference to BS 2869. Clarification / correction of the text is required so as to properly reflect the correct application of technical means of compliance as follows:

"Guidance is given in this Approved Document on ways of meeting requirements J5 & J6 when proposing to construct heating oil storage systems of 3500 litres capacity or less connected to fixed combustion appliances serving single family domestic dwellings. Domestic heating oils can include Class C2 kerosene to BS 2869, FAME to EN 14213 / EN 14214 or blends thereof to OFTEC Product Standard pr OPS24. A way of meeting requirements J5 & J6 for such installations would be to follow the relevant recommendations in BS 5410-1, whilst also adopting the guidance in paragraphs 5.4 to 5.12. A way of meeting the requirements for non-domestic installations would be to follow the relevant recommendations in BS 5410-2."

Also add new text:

"Fuel properties"

"Liquid fuels utilised for domestic heating and cooking can include Class C2 kerosene to BS 2869, FAME to EN 14213 / EN 14214 or blends thereof to OFTEC Product Standard prOPS24. Liquid fuels for non-domestic applications can include Class D Gas Oil to BS 2869, FAME to EN 14213 / EN 14214 or blends thereof to prOPS24. Kerrosene is a flammable liquid (Higher Flashpoint as defined by the HSE) having a minimum flash point of 38C. Class D Gas oil is outside of the definition of a flammable liquid as it has a minimum flashpoint of 56C. Bio-liquids again fall outside of the definition of a flammable liquid having minimum flash points in the region of 100C - 110C

5.3 p111. - 2nd line delete text "or where the tank is fully buried". Add new text at end of 3rd line:

"A way of meeting requirement J6 for underground oil storage systems would be to follow the relevant recommendations in Environment Agency Prevention of Pollution Guidelines document PPG27."

Add text 9th line after "from":

"BS 5410-2, HSE or from".

Table 9. p112. - Retitle: Add word "domestic" between words "for" and "oil" add text "not exceeding 3500 litres" after word "tanks". Replace word "tanks" with word "systems".

Location of Tank, 2nd box down add text "or structure" after word "building".
4th box down add text "or structure" after word "building".

Notes: add text to end of note 2 "(BS 476 Parts 20, 21,22 or EN 1363-1,2 & EN 1364-1)."

Delete words "steel screens" from end of Note 3 and replace with text "fire rated composite panel screens."

5.7. p113. - This text should additionally clarify the position in Wales. We would recommend that additional reference is made to BS 5410 part 2.

5.8. p113. - Please see submission OFTEC ADJ02. Delete all text after 3rd line text "secondary containment should be provided" then add after same "to prevent oil pollution."

5.9. p113. - Delete.

5.10. p113. - Change text to read "A way of meeting the requirement to provide secondary containment would be to:"

5.11. p114. - We very much appreciate the recognition of OFTEC Oil Storage Tank Standards as correctly meeting the provisions for secondary containment. We would offer a correction to the text that 5.11, ii), should read "OFS T200" not "OFS T100".

Appendix D. p126.:

D1 - This worked example needs to clarify the air leakage rate of the building so as to justify the omission of the first 5kW. It may be more appropriate to rewrite this example as being for new build without the 5kW allowance being applied and an explanation as to why.

D2 - ditto & typo at end of equation. Should read "3300".

Appendix E.

p128. - 2nd b (?). Add note that the checking of the gastightness of a flue by carrying out a smoke test does not prove operational conformity when connected to an appliance.

E12. p130. - Delete words "or oil" from end of 2nd line. Add words "or oil" between words "gas" and "flue" on third line. 5th line add text "or flue draught interference" between words "spillage" and "test".

Appendix F.

p127. - delete words "for the Petroleum Industry" and replace same with word "Ltd" within brackets. Remove blank 3rd line in OFTEC address details.

Standards referred to - p138.

BS 476 should be Parts 20, 21 / 22 as per table 9 calling for "insulation, integrity and stability". Part 4 does not give this.

Re-instate reference to BS 2869 - suggest undated.

Re-instate reference to BS 5410 - Part 2.

Add reference to:

EN 1363 - 1. Fire resistance tests - Part 1 general requirements.

EN 1363 - 2. Fire resistance tests - Part 2 alternative and additional procedures.

EN 1364 - 1. Fire resistance tests for non-load bearing elements - Part 1 Walls.

BS EN 14213. Heating Fuels - Fatty acid methyl esters (FAME) - Requirements and test methods.

BS EN 14214. Automotive fuels - Fatty acid methyl esters (FAME) for diesel engines - Requirements and test methods.

Please note that it is proposed that the requirements of EN 14213 will be amalgamated into EN 14214.

prOPS 24. Bio-liquids for combustion purposes.

Other publications referred to p142.

P 143 - under Environment Agency add PPG 27.

Please change current OFTEC Technical Book 3 reference to read "Installation requirements for Liquid Fuel storage and supply systems, Edition 1, 2010.

Please add "OFTEC Technical Book 4: Installation requirements for liquid fuel fired equipment, Edition 1, 2010."

