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WBS TEST & ACCEPTANCE CRITERIA PD.

Issue No: 2
Date of issue: January 1990

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TEST CODE SHEET

1. **TYPE OF TEST(S)**

Prevention of waste from frost damage.

2. **BYELAW REQUIREMENT FOR FITTINGS**

Byelaw 49

Every water fitting shall, so far as is reasonably practicable, be effectively protected - (a) whether by the manner of its installation, or by some other no less effective means, against damage from freezing

3. **BRITISH STANDARDS OR WATER SPECIFICATION, DEEMED TO SATISFY BYELAW REQUIREMENTS**

(See Water Supply Byelaw Guide)

BS 843 Clause 11
BS 6700 Clause 10.

3.1 Fittings with 'kitemarks' which are deemed to satisfy the requirements of byelaws are listed in the directory.

4. **TEST PROCEDURE**

4.1 Tests applicable to the following fittings:

HEATERS

- electric thermal storage, closed outlet
- electric installation, closed outlet (with or without storage).

(A) **NON-BS FITTINGS**

TEST METHOD

Carry out a visual examination to check whether a draining device is provided in accordance with BS 6700 Clause 10.6. If not, the means of protection against freezing proposed by the manufacturer shall be established, if any.

Clause 10 - Frost Precautions

10.1 General

Precautions against frost shall be taken to reduce the risk of interruption of supply, waste, leakage, damage and bursting..

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10.2 Location of pipes, fittings and appliances

As far as possible, the layout of the water service shall be planned to avoid the following locations:

- (a) external situations above ground;
- (b) an unheated part of the roof space;
- (c) an unheated cellar or underfloor space;
- (d) any other unheated part of the building, unheated stairwells or lift shafts or any other outhouse or garage;
- (e) positions near a window, airbrick or other ventilator, external door or any other place where cold draughts are likely to occur;
- (f) a chase or duct formed in an external wall.

If it is not possible to avoid these locations, then the requirements of 10.3 and 10.4 apply.....

10.3 Pipes and fittings inside buildings.

Where it is impracticable to avoid fixing pipes or fittings in the locations given in 10.2, those pipes and fittings shall be insulated in accordance with 10.4.....

10.4 Insulation

In order to avoid having to drain down daily during frosty weather any pipes or fittings that are likely to freeze shall be adequately thermally insulated.....

10.5 Local heating

Any trace heating provided for the protection of any pipes or fittings shall be additional to, and not in substitution for, the insulation stated elsewhere in Clause 10.....

10.6 Provision of stopvalves and draining facilities

Facilities shall be provided for isolating and draining down the pipes and fittings in the building.....

5. ACCEPTANCE CRITERIA

Any draining device shall meet the general requirements of BS 843 Clause 11.
If no draining device exists acceptance shall be subject to installation requirements and notes regarding the need for protection against freezing, incorporating the manufacturers recommendations and/or the requirements of BS 6700 Clause 10.

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(B) BS FITTINGS

TEST METHOD

Carry out a visual examination to establish the existence of the draining device.

Clause 11 - Draining

Every water heater shall be provided with a draining device.

For bottom-entry heaters, the draining device shall be arranged so as to discharge clear of the electrical connections and terminals.

For side-entry heaters, the cold water inlet shall be lower than the bottom of the apparatus plate opening and so arranged that the draining device can be fitted to the inlet pipe. Alternatively, the heater shall have a device for draining to a level below the bottom of the apparatus plate opening.

5. ACCEPTANCE CRITERIA

The draining device shall be provided in accordance with Clause 11.