### WRc Evaluation & Testing Centre Ltd

WBS TEST & ACCEPTANCE CRITERIA PD.

| Test Code |   |   |   |   |   |
|-----------|---|---|---|---|---|
| Sheet     | 1 | 6 | 1 | 1 | 1 |
| Number    |   |   |   |   |   |

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### TEST CODE SHEET

#### 1. <u>TYPE OF TEST(S)</u>

Prevention of contamination - primary to secondary circuits.

# 2. BYELAW REQUIREMENT FOR FITTINGS

#### Byelaw 36

(1) In every double feed indirect cylinder from which stored hot water is, or may be, drawn for domestic purposes, the pressure in the primary heater within that cylinder shall not exceed the pressure of the stored water under normal operating conditions.

(2) Paragraph (1) shall not apply to a cylinder inside which the primary heater - (a) has no joints; or (b) is constructed so that any joints will withstand any water pressure to which they are, or may be, subject under normal operating conditions.

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

(See Water Supply Byelaws Guide)

BS 1566: Part 1 Clause 8.4.

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

#### 4. <u>TEST PROCEDURE</u>

4.1 Tests applicable to the following fittings:

### CYLINDERS, INDIRECTLY HEATED, COIL TYPE PRIMARY HEATER

### (A) <u>CYLINDERS, INDIRECTLY HEATED, COIL TYPE PRIMARY HEATER</u>

#### TEST METHOD

Carry out a visual examination to establish that the number of joints does not exceed that permitted under BS1566: Part 1 Clause 8.4 and Table 2, and that such joints are made in a satisfactory manner.

### BS 1566 : Part 1, Clause 8.4

The maximum number of joints permitted in any coil other than at end connections used in a cylinder shall be as specified in Table 2.

| Type reference<br>(See table 1) | Number of joints permitted |  |  |
|---------------------------------|----------------------------|--|--|
| 0 to 10                         | 1                          |  |  |
| Above 10                        | 2                          |  |  |

Table 2. Joints in coils

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|-----------|--|--|--|--|--|
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Joints shall be made by socketting and brazing with an overlap of not less than one-third the nominal tube size.

| 1          | 2          | 3            | 4          |
|------------|------------|--------------|------------|
| British    |            | External     | Minimum    |
| Standard   | External   | height       | storage    |
| type       | diameter   | (over dome)  | capacity   |
| reference* |            |              | (see 2.6)  |
|            | А          | В            |            |
|            |            |              |            |
|            | mm         | mm           | L          |
| 0          | 300        | 1600         | 96         |
| 1          | 350        | 900          | 72         |
| 2          | 400        | 900          | 96         |
| 3          | 400        | 1050         | 114        |
|            |            |              |            |
| 4          | 450        | 675          | 84         |
| 5          | 450        | 750          | 95         |
| 6          | 450        | 825          | 106        |
| 7          | 450        | 900          | 117        |
| 8          | 450        | 1050         | 140        |
| 9          | 450        | 1200         | 162        |
| 9E         | 450        | 1500         | 206        |
|            |            |              |            |
| 10         | 500        | 1200         | 190        |
| 11         | 500        | 1500         | 245        |
| 12         | 600        | 1200         | 280        |
| 13         | 600        | 1500         | 260        |
| 13         | 600<br>600 | 1500<br>1800 | 360<br>440 |
| 14         | 000        | 1800         | 440        |
|            |            | l            |            |

Table 1. Dimensions and details of copper indirect cylinders (coil type)

# 5. <u>ACCEPTANCE CRITERIA</u>

The visual examination shall ensure that the requirements of the relevant extracts from BS1566: part 1 Clause 8.4 and Table 2 are satisfied.

The coil shall also meet the acceptance criteria of TCS 1112.2.