DRINKING WATER INSPECTORATE

REFERENCE: DWI 70/2/168

RESEARCH CONTRACT:

EXECUTIVE SUMMARY PART B “UPDATING & REVIEWING REGULATORS’ SPECIFICATIONS AGAINST EN STANDARDS”

CONTRACT MANAGER PAUL TAYLOR

Comprising

EXECUTIVE SUMMARY
TABLE OF REQUIRED ACTIONS
COMPILED SPECIFICATIONS

November 2005

Any enquiries relating to this report should be referred to the Contract Manager at the following address:
WRc-NSF Ltd, Fern Close, Pen-Y-Fan Industrial Estate, Oakdale, Gwent NP11 3EH, UK
Telephone: (01495) 248 454 Fax: (01495) 249 234
Email: paul.taylor@wrcnsf.com
EXECUTIVE SUMMARY

1. Summary

The Regulators Specifications referred to in the Water Supply (Water Fittings) Regulations 1999 Regulation 4.(2)(d) have now been in circulation for Six years and refer to a number of outdated standards and make inappropriate references. This review will recommend the actions required to ensure that only the up to date standards are referred and that inappropriate or superseded Regulators Specifications are deleted.

The majority of the recommendations to accommodate EN's within the existing Regulators’ Specifications that products must satisfy in order to comply with the Water Supply (Water Fittings) Regulations 1999, are minor editorial changes, mainly to align with, and taken directly from, the appropriate BS, BS EN or prEN document. A number of European Standards include the majority of the Regulatory requirements, these European Standards have been used to prepare compiled Specifications that reference the European Standard and the appropriate clauses within the standard that are considered to prevent contamination and promote water conservation. Specifying the appropriate clauses from the European Standard will ensure that no additional expense or bureaucracy will be placed upon manufacturers seeking to comply with the requirements of the Water Regulations, rather than requiring products comply with the full requirements of the European Standard with no apparent benefit for water conservation or backflow prevention for the Water Industry or the consumer.

Table 1 in Appendix A specifies the actions required to ensure that the Regulators' Specifications refer to the up to date standards, these being a British or European Standard as well as recommendations on deleting Specifications that are considered to be no longer required.

The Regulators' Specifications that have not been compiled require amending to refer to the standards identified in Table 1 and all references to Byelaws, WRc and all other inappropriate references must be removed.

The conclusions of this review of the Regulators' Specifications are as follows.

<table>
<thead>
<tr>
<th>Specification</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number of Published Specifications</td>
<td>216</td>
</tr>
<tr>
<td>Number of Specifications Deleted</td>
<td>47</td>
</tr>
<tr>
<td>Number of Specifications Deleted/compiled</td>
<td>70</td>
</tr>
<tr>
<td>Number of Specifications Amended</td>
<td>7 (12)</td>
</tr>
<tr>
<td>Number of Specifications Current</td>
<td>92</td>
</tr>
<tr>
<td>Number of Specifications Compiled</td>
<td>18 (compiled from EN's)</td>
</tr>
</tbody>
</table>

Total Number of Regulators’ Specifications 117

2. Foreword

This Overview document and Table of required actions contains all information considered necessary to clarify the roles and status of the review of the Regulators’ Specifications against European Standards. In particular, this Overview Document contains the following information:

• The regulatory requirements for fittings in consumers' water installations
• The role and relevance of CEN European Standards
• The basis of this review of the Regulators’ Specifications
• The principles followed, under the main headings; and, additional to the executive summary
• Table 1 identifying actions required to up date the existing Regulators’ Specifications
• Compiled Regulators' Specifications

The majority of the recommendations to accommodate EN’s within the existing Regulators’ Specifications that products must satisfy in order to comply with the Water Supply (Water Fittings)
Regulations 1999, are minor editorial changes, mainly to align with, and taken directly from, the appropriate BS, BS EN or prEN document. In a number of cases the European Standards include the majority of the Regulatory requirements, these European Standards have been used to prepare compiled Specifications that reference the EN document and the appropriate clauses within the EN that are considered to prevent contamination and promote water conservation.

Table 1 in Appendix A comments upon the actions required to ensure that the Regulators’ Specifications refer to the up to date standards, these being a British or European Standard as well as recommendations on deleting Specifications that are considered to be no longer required.

The Regulators’ Specifications that have not been compiled require amending to refer to the standards identified in table 1 and all references to Byelaws, WRc and all other inappropriate references removed.

Because the proposed changes to the Regulators' Specifications are no different from those found within published UK, CEN, and ISO standards and, in some cases, pre-standards, it has not been necessary to liaise with manufacturers and trade organisations upon this review.

3. Background

i) The requirements of the Water Supply (Water Fittings) Regulations for water fittings are as follows:

Regulation 4 - (1) (a) requires every water fitting to be of an appropriate quality and standard.

Regulation 4 - (2) requires that to be deemed of an appropriate quality or standard a water fitting must meet one of four criteria, i.e.: -

(a) it bears an appropriate CE marking in accordance with the Construction Products Directive;
(b) it conforms to an appropriate harmonized standard or European technical approval;
(c) it conforms to an appropriate British Standard or some other national specification of an EEA State which provides an equivalent level of protection and performance; or,
(d) it conforms to a specification approved by the regulator.

The Department had intended that the principal approval criterion would be (b) above - conformity to an appropriate harmonized standard - i.e. a CEN European Standard meeting the requirements of the Mandate under the Construction Products Directive from the European Commission to the European Standardisation Organisation (CEN). The Mandate requires, in essence, that European Standards include for existing regulatory requirements in Member States. Unfortunately no related European standards (ENs) were available in 1999. Therefore, under the provisions of Directive 98/34 EC (which replaced Directive 83/189) all new Regulators’ specifications (for WCs and for backflow protection devices) and, all previous Water Byelaws Scheme (WBS) product specifications, were submitted to the Commission of the European Union and were thus agreed by all Member States.

The WBS specifications were envisaged as a stopgap, pending availability of European standards. Because there are now a number of European standards published, the Department has now reviewed the Regulators’ Specifications against European standards and makes recommendations to include references to ENs and prEN’s. The review and its recommendations will reduce the number of specification by nearly 50% and will align the remaining Specifications with European Standards for the published Regulators’ Specifications.

4. Principles

Principles underpinning this work are as follows:

i) CEN European Standards
Harmonised European Standards will, in due course, replace specific Regulators’ Specifications. Initially this will be by incorporating the requirements of the Regulators’ Specifications in ENs, as intended by the Construction Products Directive. Subsequently, it is envisaged that Regulatory requirements across Member States will converge by Regulators approximating their requirements, according to the Construction Products Directive.

ii) Water Conservation

For water conservation, Regulatory requirements must be justifiable in relation to the potential rate of water loss.

Related requirements in standards, especially draft ENs, have become more demanding in order to meet rising market expectations for quality, durable, and consistent products. This is especially so for levels of durability, such as can now be achieved through modern materials and mass production techniques. In many cases, this will be more demanding than could be justified on grounds of water conservation. This review of the Regulators’ specifications has been undertaken of what can be justified for water conservation.

5. The objectives in respect of reviewing ENs and Regulators’ Specifications

i) prepare tables that list all product specifications;

ii) ensure listing of UK Regulators’ specifications, includes the Department’s for WCs and backflow protection devices, and all others which were adopted from the Water Regulations Advisory Scheme;

iii) identify any Regulators’ Specification, which have been, or are in the process of being, superseded by CEN European Standards, including information on planned or actual implementation dates and on whether the EN/draft EN meets all existing UK Regulators’ Specification;

iv) assess whether, and to what extent, the requirements of the Regulators’ Specification may exceed, or fail to meet, what can reasonably be justified on grounds of water conservation and protection against contamination, such as by what may be construed as requirements for lifetime fitness for purpose.

Note: The objectives of this project do not address the fitness for purpose issues of materials in contact with drinking water.

6. Conclusions reviewing Regulators’ Specifications against EN Standards

After identifying the 87 notified Regulator’s Specifications, a further 129 Specifications have been identified that make up the published Regulators’ Specifications. As part of this review all 216 Regulators’ Specifications have been reviewed.

A table that lists all Regulators’ Specifications and the standards referred has been produced (Table 1); the corresponding European Standards including draft European Standards have been referenced if available and comments upon the actions required to update the Regulators’ Specifications. The BSI website and the Technical index website have been used as a basis for ensuring up to date standards and information is referred.

It was envisaged that with the publication of European Standards that the Regulators’ Specifications could be deleted and reference made wholly to the appropriate European Standard in its entirety as a means of ensuring compliance with the essential requirements of the Water Supply (Water Fittings) Regulations 1999. However if a reference to the complete European Standard is made then additional test requirements will be imposed over and above those imposed by the existing Regulators’ Specifications. European Standards generally require flowrate, pressure drop, dimensional, material requirements and acoustic testing. European Standards always exceed the number of requirements than those required by the existing Regulators’ Specifications (but do not necessarily ensure the essential requirements of the Water Regulations
are satisfied). European Standards cover fitness for purpose, whereas the Regulators’ Specifications are restricted to preventing contamination and to conserving water. If the Regulators’ Specification requires a product to comply with the complete European standard then this will impose additional expense and bureaucracy upon manufacturers with no additional benefit for water conservation or backflow prevention for the Water Industry or the consumer.

As an example the cost of WRAS approval for a pillar tap would be approximately £950, the cost of testing against EN200 including the acoustic requirement would be approximately £2500.

As part of this review the contractor after discussions with the DWI project manager agreed that only the exact clauses within the European Standards should be referenced within the proposed Regulators’ Specifications.

Whilst reviewing the Regulators’ Specifications against European Standards it became apparent that in some generic product groups, particularly Backflow protection, that the number of published or soon to be published standards is considerable. Unfortunately in other generic product groups the publication of European Standards is disappointingly low.

A number of published EN valve standards allow for leakage rates, whereas the existing Regulators’ Specifications require products to be leaktight. In these cases when considered appropriate the procedure from the European Standard has been suggested as a replacement with a caveat attached but that the requirement or criteria from the existing Regulators’ Specifications is maintained i.e. leaktightness.

Table 1 identifies that there are a total 216 test procedures, of these there are 104 test procedures relating to backflow prevention and WC suites of which 25 have been deleted as they refer to criteria that have been superseded by the Regulators’ Specifications for WC suites or the appropriate European Standards for backflow. From the 216 procedures, 47 test procedures have been deleted, 70 have been compiled, 7 require fully amending (12 amendments total) or replacing references to the standard. The remaining 92 test procedures are considered to be current and therefore require no amendment.

The conclusions of the review of the Regulators’ Specifications are as follows if the recommendations of this report are implemented.

Total Number of Published Regulators’ Specifications 216
Number of Regulators Specifications Deleted 47
Number of Regulators Specifications Deleted/compiled 70
Number of Regulators Specifications Amended 7 (12)
Number of Regulators Specifications Current 92
Number of Regulators Specifications Compiled 18 (compiled from EN's)

Total Number of Regulators’ Specifications 117

7. Justification for amending and deleting test procedures

As part of this review of the Regulators’ Specifications the proposed amendments that are made to the Specifications are to be justifiable in that they provide a benefit for Water Conservation or prevention of contamination. However the degree of Water Conservation that can be achieved by products connected to the domestic supply may be extremely small per product installed, but the number of products installed countrywide will be enormous. Therefore benefits of zero leakage being a Regulatory requirement can have an extremely large impact upon water conservation countrywide.

Justification for amending the test procedures includes the removal of references to withdrawn or superseded standards these being either BS or BS EN documents. If references are made to superseded or withdrawn standards then these are highlighted in the index table and the appropriate standard referenced. If the test procedure within the up to date standard is more onerous than the test procedure already available and the procedure is still considered valid then
the existing test procedure can be retained but the reference to the withdrawn or superseded standard number should be removed from the Specification.

8. European standards that include the majority of the Regulators’ Specifications.

Whilst producing the table comparing the existing Regulators Specifications against European Standards it became apparent that European Standards do not incorporate all the existing Regulators’ Specifications. However a number of EN’s accommodate the vast majority of the Regulators’ Specifications and are listed below.

- EN 13076 Type AA Air Gap
- EN 13077 Type AB Air Gap
- EN 13078 Type AC Air Gap
- EN 13079 Type AD Air Gap
- prEN 14622 Type AF Air Gap
- prEN 14623 Type AG Air Gap
- EN 200 (rev) Sanitary Tapware
- EN 1487 Building Valves*
- EN 1488 Building Valves expansion group*
- EN 1489 Building Valves pressure safety valves*
- EN 1490 Building Valves combined temperature and pressure relief valves*
- EN 1491 Building Valves expansion valves*
- EN 12729 Type BA Backflow Preventer
- prEN 14367 Type CA Backflow Preventer
- prEN 14451 Type DA Backflow Preventer
- prEN 14452 Type DB Backflow Preventer
- prEN 14453 Type DC Backflow Preventer
- prEN 13959 Type E Backflow Preventer
- prEN 14454 Type HA Backflow Preventer
- EN 14506 Type HC Backflow Preventer
- prEN 14455 Type LA Backflow Preventer
- EN 13280 one piece glass fibre reinforced cisterns
  *Compile into one Regulators' Specification.

The existing Regulators’ Specifications generally list a single test procedure along with the acceptance criteria for a generic type of water related product, the full list of Specifications to be applied to the water related product are then specified by WRAS in their product test report documents. This method of specifying test criteria i.e. individually and not listing all the test criteria to be applied to that generic product is not satisfactory. With the advent of European Standards that now contain the majority of the Regulators’ Specifications within the standard the contractor believes that a number of the existing Regulators’ Specifications can now be compiled or collated to produce a single Specification for a generic product type. This will not only benefit the manufacturer of the water product but also the Regulator, as the number of Specifications will be greatly reduced.

These compiled Specifications will make reference to the applicable European Standard and the applicable clauses within that standard that the product must comply with in order to verify compliance with the Water Supply (Water Fittings) Regulations 1999, Regulation 4.(1)(a)&(b). This approach will enable the manufacturer of the water related product to more easily ascertain the Regulatory requirements that their product must comply with.
It was agreed that the complete European standards listed above be referenced within the Regulators' Specifications and that the existing Regulators' Specifications referring to these devices be deleted. The existing Regulators' Specifications for these devices will be referred to being compiled into a single Specification in Table 1.

The European standards listed above do not incorporate all the Regulators Specifications but these Specifications are still required for products installed within the UK and will still be required to be referenced within the compiled Specifications, the Specifications are listed as:

- Specification 2111.1 Non-metallic materials in contact with the water must comply with BS 6920.
- Specification 2114.2 Opacity test, no more than 0.2% of visible light shall be transmitted to the water.
- Specification 1412.1 Corrosion protection.
- Specification 6001.1 Identification, the EN's require more onerous identification requirements.

The compiled specifications are presented in Annex B.

The date reference of the European Standard has not been recorded within the compiled Specifications presented (Appendix B). European Standard are amended every 5 years and if significant changes are made then the clause numbers will change and the references within the Regulators' Specifications will then refer to inappropriate clauses. Consideration must be given to referencing the year of publication of the European Standard. Whichever method is agreed there will be some cost incurred in ensuring that the Regulators' Specifications remain current.

Generic products compiled 22, however the building valves standards (5) can be incorporated into one specification, therefore 18 new compiled Specifications will be presented. Existing Regulators' Specifications compiled and therefore considered to be deleted 70.

Regulators’ Specifications reduced by 52.

9. Appendices

List of appendices

Appendix A - Table 1, actions required to update the Regulators’ Specifications.
Appendix B - Compiled Regulators' Specifications
APPENDIX A
Table 1 Actions required to update the Regulators’ Specifications.

<table>
<thead>
<tr>
<th>Test Procedure Number</th>
<th>Issue No.</th>
<th>TYPE OF FITTINGS</th>
<th>PROCEDURE</th>
<th>Status</th>
<th>STANDARDS REFERRED</th>
<th>ACTION REQUIRED</th>
</tr>
</thead>
<tbody>
<tr>
<td>1111.1</td>
<td>1</td>
<td>Taps (all) and valves (various)</td>
<td>Closure</td>
<td>Current</td>
<td>BS 750 clause 7.2.1</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Current</td>
<td>BS 1010 pt2 clause 1.7</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Current</td>
<td>BS 2580 clause 18</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Current</td>
<td>BS 2767 clause 5.4.2.2</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Current</td>
<td>BS 2879 clause 18</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Replace</td>
<td>BS 5155 clause 12</td>
<td>Replace with BS EN593 clause 6.2 but maintain requirement no leakage</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Current</td>
<td>BS 5163 clause 18.2.19.1/2</td>
<td>Delete reference &amp; compile within procedure 0200.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Compile</td>
<td>BS 5412 clause 8.2.2</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Current</td>
<td>BS 5433 clause 8</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Current</td>
<td>BS 6675 clause 12</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1111.2</td>
<td>1</td>
<td>Valves-float operated (all)</td>
<td>Closure</td>
<td>Current</td>
<td>WRAS Generic test</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Current</td>
<td>BS 1212 pt 1 clause 15b</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Current</td>
<td>BS 1212 pt 2 clause 5.2</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Current</td>
<td>BS 1212 pt 3 clause 24.2</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Add reference to BS 1212 pt4</td>
</tr>
<tr>
<td>1111.3</td>
<td>1</td>
<td>Valves-thermal and pressure relief</td>
<td>Closure - Pressure Conditions</td>
<td>Compile</td>
<td>WRAS Generic Test</td>
<td>Compile with reference to: BS EN 1487 clause 9.4.2.1/24/5 &amp; 9.4.1 BS EN 1488 clause 9.4.2.1/2/4/5 &amp; 9.4.1 BS EN 1489 clause 6.2.2/3/5/6 &amp; 5.2 BS EN 1490 clause 6.3.1/2/4/5 &amp; 5.2 BS EN 1491 clause 6.2.2/3/5/6 &amp; 5.2</td>
</tr>
<tr>
<td>1111.4</td>
<td>1</td>
<td>Valves-thermal and pressure</td>
<td>Closure - Temperature</td>
<td>Compile</td>
<td>WRAS Generic Test</td>
<td>Compile with ref to BS EN 1490 clause 6.2</td>
</tr>
<tr>
<td>1111.5</td>
<td>1</td>
<td>Type ‘HC’ backflow device</td>
<td>Closure - Diverter</td>
<td>Compile</td>
<td>BS EN 1111 clause 9.6</td>
<td>Compile with ref to prEN 14506 clause 10.4 include within prEN 200 for no backflow protection clause 7.7 &amp; 7.8</td>
</tr>
<tr>
<td>1111.6</td>
<td>1</td>
<td>Valves-pressure limiting and reducing</td>
<td>Closure at set outlet pressure</td>
<td>Current</td>
<td>WRAS Generic Test</td>
<td>Compile with ref to BS EN 6283 pt4 Appendix D</td>
</tr>
<tr>
<td>1111.7</td>
<td>1</td>
<td>CTA with manual diverter</td>
<td>Closure - Diverter</td>
<td>Compile</td>
<td>WRAS Generic Test</td>
<td>Compile with prEN200 clause 7.8</td>
</tr>
<tr>
<td>1111.8</td>
<td>1</td>
<td>Valves, non-return</td>
<td>Closure - HP Downstream</td>
<td>Current</td>
<td>WRAS Generic Test</td>
<td>None</td>
</tr>
<tr>
<td>Test Procedure Number</td>
<td>Issue No.</td>
<td>TYPE OF FITTINGS</td>
<td>PROCEDURE</td>
<td>Status</td>
<td>STANDARDS REFERRED</td>
<td>ACTION REQUIRED</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------</td>
<td>----------------------------------------</td>
<td>----------------------</td>
<td>---------</td>
<td>------------------------------------------</td>
<td>------------------------------------------------------</td>
</tr>
<tr>
<td>1111.9</td>
<td>1</td>
<td>Type 'E' backflow device</td>
<td>Closure - (LP)</td>
<td>Compile</td>
<td>PrEN 164167 clause 7.6</td>
<td>Compile with current prEN 13959 Clause 11.5</td>
</tr>
<tr>
<td>1111.10</td>
<td>1</td>
<td>Type 'E' backflow device</td>
<td>Closure - (HP)</td>
<td>Compile</td>
<td>PrEN 164167 clause 7.7</td>
<td>Compile with current prEN 13959 Clause 11.6</td>
</tr>
<tr>
<td>1111.11</td>
<td>1</td>
<td>Valves, non-return</td>
<td>Closure - LP Downstream</td>
<td>Current</td>
<td>WRAS Generic Test</td>
<td>None</td>
</tr>
<tr>
<td>1111.12</td>
<td>1</td>
<td>Bidet Diverter</td>
<td>Closure</td>
<td>Delete</td>
<td>WRAS Generic Test</td>
<td>Delete as tests 1111.5 &amp; 1111.7 cover this specification</td>
</tr>
<tr>
<td>1111.13</td>
<td>1</td>
<td>Type 'BA' backflow device</td>
<td>Closure - (LP)</td>
<td>Compile</td>
<td>PrEN 12729 clause 9.5.2</td>
<td>Compile with current BS EN 12729 Clause 9.6.2</td>
</tr>
<tr>
<td>1111.14</td>
<td>1</td>
<td>Type 'BA' backflow device</td>
<td>Closure - (HP)</td>
<td>Compile</td>
<td>PrEN 12729 clause 9.5.1</td>
<td>Compile with current BS EN 12729 Clause 9.6.1</td>
</tr>
<tr>
<td>1111.15</td>
<td>1</td>
<td>Type 'BA' backflow device</td>
<td>Closure - (LP)</td>
<td>Compile</td>
<td>PrEN 12729 clause 9.5.3</td>
<td>Compile with current BS EN 12729 Clause 9.6.3</td>
</tr>
<tr>
<td>1111.16</td>
<td>1</td>
<td>Type 'BA' backflow device</td>
<td>Pressure Differential</td>
<td>Compile</td>
<td>PrEN 12729 clause 9.6.4/5</td>
<td>Compile with current BS EN 12729 Clause 9.7.4 &amp; 9.7.5</td>
</tr>
<tr>
<td>1111.17</td>
<td>1</td>
<td>Type 'BA' backflow device</td>
<td>Closure - Relief Valve</td>
<td>Compile</td>
<td>PrEN 12729 clause 9.6.6</td>
<td>Compile with current BS EN 12729 Clause 9.7.6</td>
</tr>
<tr>
<td>1111.18</td>
<td>1</td>
<td>Type 'CA' backflow device</td>
<td>Closure - Leaktight</td>
<td>Compile</td>
<td>PrEN W1097 clause 9.5.1</td>
<td>Compile with current prEN 14367 Clause 9.5.1</td>
</tr>
<tr>
<td>1111.19</td>
<td>1</td>
<td>Type 'CA' backflow device</td>
<td>Closure</td>
<td>Compile</td>
<td>PrEN W1097 clause 9.5.2</td>
<td>Compile with current prEN 14367 Clause 9.5.2</td>
</tr>
<tr>
<td>1111.20</td>
<td>1</td>
<td>Type 'HA' backflow device</td>
<td>Closure - (LP)</td>
<td>Compile</td>
<td>PrEN W1 108 clause 7.6 &amp; AS/NZ 2845 pt1 clause Q</td>
<td>Compile with current prEN 14454 Clause 10.4</td>
</tr>
<tr>
<td>1111.21</td>
<td>1</td>
<td>Type 'DA' backflow device</td>
<td>Closure - Leaktight</td>
<td>Compile</td>
<td>PrEN W1 111 clause 11.2</td>
<td>Compile with current prEN 14451 Clause 10.4</td>
</tr>
<tr>
<td>1111.22</td>
<td>1</td>
<td>Type 'LA' backflow device</td>
<td>Closure - Leaktight</td>
<td>Compile</td>
<td>PrEN W1 D58 clause 11.3</td>
<td>Compile with current prEN 14455 Clause 10.5</td>
</tr>
<tr>
<td>1111.23</td>
<td>1</td>
<td>Type 'HA' backflow device</td>
<td>Closure - (HP)</td>
<td>Compile</td>
<td>PrEN W1 108 clause 6.5</td>
<td>Compile with current prEN 14454 Clause 10.6</td>
</tr>
<tr>
<td>1111.24</td>
<td>1</td>
<td>Type 'DUK1' backflow device</td>
<td>Performance Tests</td>
<td>Current</td>
<td>BS 6282 pt4</td>
<td>None</td>
</tr>
<tr>
<td>1112.1</td>
<td>1</td>
<td>Various</td>
<td>Body Leakage</td>
<td>Current</td>
<td>BS 750 clause 7.2.2</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Current</td>
<td>BS 1010 pt2 clause 1.7.1</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Current</td>
<td>BS 2580 clause 18</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Current</td>
<td>BS 2767 clause 5.4.2.1</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Current</td>
<td>BS 2879 clause 18</td>
<td>None</td>
</tr>
<tr>
<td>Test Procedure Number</td>
<td>Issue No.</td>
<td>TYPE OF FITTINGS</td>
<td>PROCEDURE</td>
<td>Status</td>
<td>STANDARDS REFERRED</td>
<td>ACTION REQUIRED</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------</td>
<td>------------------</td>
<td>-----------</td>
<td>--------</td>
<td>--------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Replace</td>
<td>BS 3456 pt3 sec 3.9 clause</td>
<td>Replace with BS EN 60335.2.35, clause 22.102</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Replace</td>
<td>BS 5071 clause 4.6.5</td>
<td>Replace with BS EN 60335-2.75. Clause 22.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Current</td>
<td>BS 5155 clause 12.3, 12.4.1</td>
<td>Replace with BS EN 593 clause 6.2 &amp; BS EN 12266-3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Compile</td>
<td>BS 5163 clause 8, 18.2, 19.1</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Current</td>
<td>BS 5412/3 pt 2 clause 9.11</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Current</td>
<td>BS 5433 clause 8</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Current</td>
<td>BS 5728 pt3 clause 10.1.3.2</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Current</td>
<td>BS 6675 clause 12</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ADD</td>
<td>WRAS Generic test</td>
<td>Add reference to cover all products and delete procedure 1113.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BS EN 1254 PT 1,2,3,4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1112.2</td>
<td>1</td>
<td>Various</td>
<td>Body Leakage</td>
<td>Current</td>
<td>WRAS Generic test</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BS 699 clause 11.1</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BS 843 clause 14.1</td>
<td>Replace with BS EN 60335-2.21 clause 22.101</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BS 853 clause 12.2</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BS 1565 clause 15.1</td>
<td>Standard withdrawn and not replaced</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BS 1566 pt1 clause 12.1/2</td>
<td>Amend text, refer to clause 16.1 and 16.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BS 1566 pt2 clause 12.1/2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BS 3377 clause 4</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BS 4433 pt1 clause 1.13</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BS 4433 pt2 clause 1.12</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BS 5258 pt1 clause 7.3</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BS 5258 pt7 clause 8.2</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BS 5258 pt8 clause 8.2</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BS 5918 appendix E clause E.2.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BS 3377 clause 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BS 4433 pt1 clause 1.13</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BS 4433 pt2 clause 1.12</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BS 5258 pt1 clause 7.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BS 5258 pt7 clause 8.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BS 5258 pt8 clause 8.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BS 5918 appendix E clause E.2.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BS 3377 clause 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BS 4433 pt1 clause 1.13</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BS 4433 pt2 clause 1.12</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BS 5258 pt1 clause 7.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BS 5258 pt7 clause 8.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BS 5258 pt8 clause 8.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BS 5918 appendix E clause E.2.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1112.3</td>
<td>1</td>
<td>Type ‘BA’ backflow device</td>
<td>Body Leakage</td>
<td>Compile</td>
<td>PrEN 12729 clause 9.4.1</td>
<td>Compile with current BS EN 12729 Clause 9.5.1</td>
</tr>
<tr>
<td>1112.4</td>
<td>1</td>
<td>Tube-copper</td>
<td>Body Leakage</td>
<td>Replace</td>
<td>WRAS Generic test</td>
<td>Replace with BS EN 1057 clause C.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BS 2871 pt1 clause 9.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1112.5</td>
<td>1</td>
<td>Tube-stainless steel</td>
<td>Body Leakage</td>
<td>Current</td>
<td>WRAS Generic test</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BS 2871 pt2 clause 10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Test Procedure Number</td>
<td>Issue No.</td>
<td>TYPE OF FITTINGS</td>
<td>PROCEDURE</td>
<td>Status</td>
<td>STANDARDS REFERRED</td>
<td>ACTION REQUIRED</td>
</tr>
<tr>
<td>-----------------------</td>
<td>----------</td>
<td>------------------</td>
<td>-----------</td>
<td>--------</td>
<td>-------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>1112.6</td>
<td>1</td>
<td>Tube-plastics and rubber</td>
<td>Body Leakage</td>
<td>Outdated</td>
<td>WRAS Generic test BS 1972 clause 8.1.1 BS 3505 clause 6.4 BS 4991 clause 6.3 &amp; app D BS 6572 clause 5.2.1</td>
<td>Out of date but still required by industry for repair Suspended but still required by industry Suspended but still required by industry Suspended and replaced by BS EN 12201-1/2&amp;5, amend TCS by adding reference to these standards, clauses. BS EN 12201 exceeds the existing requirements, nearest test referred to in EN 12201-5, table 3, leaktightness under internal pressure, mechanical joints.</td>
</tr>
<tr>
<td>1112.6</td>
<td></td>
<td></td>
<td></td>
<td>Current/susp Add</td>
<td>BS 6730 clause 5.2.1</td>
<td>Suspended and replaced by BS EN 12201-1/2&amp;5, Amend TCS by adding reference to these standards, clauses. BS EN 12201 exceeds the existing requirements, nearest test referred to in EN 12201-5, table 3, leaktightness under internal pressure, mechanical joints. New plastic pipe materials and joints see 7.3 and appendix B</td>
</tr>
<tr>
<td>1112.7</td>
<td>1</td>
<td>Valves, float operated (all)</td>
<td>Body Leakage</td>
<td>Current</td>
<td>WRAS Generic test BS 1212 pt1 clause 15a BS 1212 pt2 clause 5.1 BS 1212 pt 3 clause 24.1 BS 1212 pt4 clause 16.1</td>
<td>None</td>
</tr>
<tr>
<td>1112.7</td>
<td></td>
<td></td>
<td></td>
<td>Current/susp Add</td>
<td>BS 3456 pt3 section 3.9 clause 22.28</td>
<td>None</td>
</tr>
<tr>
<td>1112.8</td>
<td>1</td>
<td>Heaters, electric instantaneous, open outlet</td>
<td>Body Leakage</td>
<td>Replace</td>
<td>WRAS Generic test BS 3456 pt3 section 3.9 clause 22.28</td>
<td>Replace with BS EN 60335-2-35 clause 22.102</td>
</tr>
<tr>
<td>1112.9</td>
<td>1</td>
<td>Type ‘CA’ backflow device</td>
<td>Body Leakage</td>
<td>Compile</td>
<td>prEN W1097 clause 9.4.1</td>
<td>Compile with current prEN 14367 Clause 9.4.1</td>
</tr>
<tr>
<td>1112.11</td>
<td>1</td>
<td>Combination HW storage units</td>
<td>Body Leakage</td>
<td>Current</td>
<td>WRAS Generic test BS 3198 clause 13.1</td>
<td>None</td>
</tr>
<tr>
<td>Test Procedure Number</td>
<td>Issue No.</td>
<td>TYPE OF FITTINGS</td>
<td>PROCEDURE</td>
<td>Status</td>
<td>STANDARDS REFERRED</td>
<td>ACTION REQUIRED</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------</td>
<td>------------------</td>
<td>--------------------</td>
<td>-------------</td>
<td>-----------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1112.14</td>
<td>1</td>
<td>Expansion vessels</td>
<td>Body Leakage</td>
<td>Current</td>
<td>WRAS Generic test, loosely based upon BS 6144</td>
<td>None</td>
</tr>
<tr>
<td>1112.15</td>
<td>1</td>
<td>Type 'E' backflow device</td>
<td>Body Leakage</td>
<td>Compile</td>
<td>PrEN 164167 clause 7.4</td>
<td>Compile with current prEN 13959 Clause 11.3</td>
</tr>
<tr>
<td>1112.17</td>
<td>1</td>
<td>Type 'LA' backflow device</td>
<td>Body Leakage</td>
<td>Compile</td>
<td>PrEN W1 D58 clause 11.2</td>
<td>Compile with current prEN 14455 Clause 10.4</td>
</tr>
<tr>
<td>1113.1</td>
<td>1</td>
<td>Valves</td>
<td>Joint Effectiveness</td>
<td>Delete</td>
<td>BS 864 pt2 clause 13.1 BS 1010 pt2 clause 1.7.2 BS 5071 clause 4.6.5 BS 5412</td>
<td>Delete, updated ref to BS EN 1254 added to TCS 1112.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Delete</td>
<td>BS 5433 clause 8 WRAS Generic test</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Replace</td>
<td>BS 864 pt3 clause 19 BS 864 pt5 BS 4346 pt2 clause 5.11 BS 5114 clause 4.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Replace</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Outdated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1113.2</td>
<td>1</td>
<td>Fittings with connections for plastic pipes</td>
<td>Joint Effectiveness</td>
<td>Outdated</td>
<td>WRAS Generic test BS 6282 pt3 clause 13 BS 6282 pt4 clause 8</td>
<td>Delete Superseded by Regulators’ Specification procedure 111.21</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Replace</td>
<td>BS 1968 Section 9</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Replace</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Outdated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1113.4</td>
<td>1</td>
<td>DA Vacuum Breakers</td>
<td>Water Tightness</td>
<td>Delete</td>
<td>WRAS Generic test BS 6282 pt3 clause 13 BS 6282 pt4 clause 8</td>
<td>Delete Superseded by Regulators’ Specification procedure 111.21</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Delete</td>
<td>BS 1968 Section 9</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Delete</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1211.1</td>
<td>1</td>
<td>Valves, stop, solenoid operated</td>
<td>Endurance - Solenoid</td>
<td>Current</td>
<td>WRAS Generic test</td>
<td>None</td>
</tr>
<tr>
<td>1211.2</td>
<td>1</td>
<td>Taps (all) and valves (in draw-off situations)</td>
<td>Endurance - Tapware</td>
<td>Compile</td>
<td>WRAS Generic test believed to be derived from BS 5412, 2 options available.</td>
<td>Compile with prEN 200 (rev) clause 11.1</td>
</tr>
<tr>
<td>1211.3</td>
<td>1</td>
<td>CTA with swivel outlet</td>
<td>Endurance - Swivel</td>
<td>Compile</td>
<td>WRAS Generic test believed to be derived from BS 5412, 2 options, single or divided outlet.</td>
<td>Compile with prEN 200 (rev) clause 11.3 (single outlet) Compilation document 0200.1 accounts for double outlets.</td>
</tr>
<tr>
<td>Test Procedure Number</td>
<td>Issue No.</td>
<td>TYPE OF FITTINGS</td>
<td>PROCEDURE</td>
<td>Status</td>
<td>STANDARDS REFERRED</td>
<td>ACTION REQUIRED</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------</td>
<td>------------------</td>
<td>-----------</td>
<td>--------</td>
<td>--------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>1211.4</td>
<td>1</td>
<td>Valves, float operated (except continuous HW use)</td>
<td>Endurance - Float Valves</td>
<td>Current Add</td>
<td>WRAS Generic test BS 1212 part 1/2/3 BS 1212 pt 4</td>
<td>None Add reference to ensure all valve types have test criteria</td>
</tr>
<tr>
<td>1211.5</td>
<td>1</td>
<td>Type ‘HC’ backflow device</td>
<td>Endurance - Auto Diverter</td>
<td>Compile</td>
<td>AHG1 Feb 1999</td>
<td>Compile with current prEN 14506 clause 10.5 include within prEN 200 (rev). For no backflow protection clause 11.2</td>
</tr>
<tr>
<td>1211.6</td>
<td>1</td>
<td>Heaters, electric thermal storage etc</td>
<td>Temperature Rise</td>
<td>Current</td>
<td>Generic WRAS test derived from BS 843</td>
<td>BS EN 603352-21 now applies but the temp rise test is not incorporated into the standard therefore maintain.</td>
</tr>
<tr>
<td>1211.7</td>
<td>1</td>
<td>Taps, self-closing</td>
<td>Endurance</td>
<td>Current</td>
<td>EN 816</td>
<td>None</td>
</tr>
<tr>
<td>1211.8</td>
<td>1</td>
<td>Type ‘BA’ backflow device</td>
<td>Endurance - 5000 RPZ</td>
<td>Compile</td>
<td>PrEN 12729 clause 9.4.2</td>
<td>Compile with current BS EN Clause 9.5.2 Test 3</td>
</tr>
<tr>
<td>1211.10</td>
<td>1</td>
<td>DA Vacuum Breakers</td>
<td>Endurance</td>
<td>Delete</td>
<td>IGN 5-11-03 Clause 12 IGN 5-11-04 Clause 8 BS 6282 Clause 12</td>
<td>Delete superseded by Regulators’ Specification 1211.24</td>
</tr>
<tr>
<td>1211.11</td>
<td>1</td>
<td>DA Vacuum Breakers</td>
<td>Sealing</td>
<td>Delete</td>
<td>BS 6282 pt 3 clause 14 IGN 5-11-03/04 clause 14 &amp; 8.6</td>
<td>Delete superseded by Regulators’ Specification 1211.25</td>
</tr>
<tr>
<td>1211.12</td>
<td>1</td>
<td>Type ‘E’ backflow device</td>
<td>Endurance - Check Valve</td>
<td>Compile</td>
<td>PrEN 164167 clause 7.10</td>
<td>Compile with current prEN 13959 Clause 11.9</td>
</tr>
<tr>
<td>1211.14</td>
<td>1</td>
<td>Valves intended for shower control</td>
<td>Endurance - Shower Control</td>
<td>Current</td>
<td>WRAS Generic test</td>
<td>None</td>
</tr>
<tr>
<td>1211.15</td>
<td>1</td>
<td>Valves, drop for toilets</td>
<td>Endurance</td>
<td>Current</td>
<td>Water Regulations 1999</td>
<td>None</td>
</tr>
<tr>
<td>1211.16</td>
<td>1</td>
<td>Valves, water supply for instantaneous water heaters</td>
<td>Endurance</td>
<td>Current</td>
<td>WRAS Generic test</td>
<td>None</td>
</tr>
<tr>
<td>1211.17</td>
<td>1</td>
<td>Unvented Hot Water Systems</td>
<td>Performance (bubble)</td>
<td>Current</td>
<td>WRAS Generic Test</td>
<td>None</td>
</tr>
<tr>
<td>1211.18</td>
<td>1</td>
<td>Type ‘CA’ backflow device</td>
<td>Endurance - CA Devices</td>
<td>Compile</td>
<td>PrEN W1097 clause 9.4.3</td>
<td>Compile with current prEN 14367 Clause 9.4.3</td>
</tr>
<tr>
<td>1211.19</td>
<td>1</td>
<td>Type ‘CA’ backflow device</td>
<td>Endurance - CA Devices</td>
<td>Compile</td>
<td>PrEN W1097 clause 9.4.4</td>
<td>Compile with current prEN 14367 Clause 9.4.4</td>
</tr>
<tr>
<td>Test Procedure Number</td>
<td>Issue No.</td>
<td>TYPE OF FITTINGS</td>
<td>PROCUREMENT</td>
<td>Status</td>
<td>STANDARDS REFERRED</td>
<td>ACTION REQUIRED</td>
</tr>
<tr>
<td>-----------------------</td>
<td>----------</td>
<td>------------------</td>
<td>-------------</td>
<td>--------</td>
<td>--------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>1211.20</td>
<td>1</td>
<td>Type 'DB' backflow device</td>
<td>Endurance</td>
<td>Compile</td>
<td>Pr EN W1 112 Clause 11.6</td>
<td>Compile with current prEN 14452 Clause 10.8</td>
</tr>
<tr>
<td>1211.21</td>
<td>1</td>
<td>Remote/non-touch actuators</td>
<td>Endurance</td>
<td>Current</td>
<td>WRAS Generic test</td>
<td>None</td>
</tr>
<tr>
<td>1211.22</td>
<td>1</td>
<td>Type 'BA' backflow device</td>
<td>Endurance</td>
<td>Compile</td>
<td>PrEN 12729 clause 9.4.2</td>
<td>Compile with current BS EN 12729 clause 9.5.2 Test 1 &amp; 2</td>
</tr>
<tr>
<td>1211.23</td>
<td>1</td>
<td>Type 'HA' backflow device</td>
<td>Endurance</td>
<td>Compile</td>
<td>Pr EN W1 108 Clause 6.7</td>
<td>Compile with current prEN 14454 Clause 10.9</td>
</tr>
<tr>
<td>1211.24</td>
<td>1</td>
<td>Type 'DA' backflow device</td>
<td>Endurance</td>
<td>Compile</td>
<td>Pr EN W1 111 Clause 11.6</td>
<td>Compile with current prEN 14451 Clause 10.8.1</td>
</tr>
<tr>
<td>1211.25</td>
<td>1</td>
<td>Type 'DA' backflow device</td>
<td>Endurance</td>
<td>Compile</td>
<td>Pr EN W1 111 Clause 11.63</td>
<td>Compile with current prEN 14451 Clause 10.8.2 &amp; 10.8.3</td>
</tr>
<tr>
<td>1211.26</td>
<td>1</td>
<td>Type 'LA' backflow device</td>
<td>Endurance</td>
<td>Compile</td>
<td>Pr EN W1 DS8 Clause 11.8</td>
<td>Compile with current prEN 14455 Clause 10.10</td>
</tr>
<tr>
<td>1212.1</td>
<td>6</td>
<td>Cisterns Plastics</td>
<td>Accelerated Ageing</td>
<td>Replace</td>
<td>BS 7491 Pt 1</td>
<td>Replace with current BS EN 13280 Appendix H</td>
</tr>
<tr>
<td>1212.3</td>
<td>1</td>
<td>Fittings and pipes etc for domestic appliances</td>
<td>Accelerated Ageing</td>
<td>Current</td>
<td>BS 7291 Pt 1 Appendix C BS 4213</td>
<td>Replace with current BS EN 13280 Appendix H</td>
</tr>
<tr>
<td>1212.4</td>
<td>1</td>
<td>Floats, all materials, not for continuous HW use</td>
<td>Accelerated Ageing</td>
<td>Current</td>
<td>BS 2456 Clause 4.1 Appendix C</td>
<td>None</td>
</tr>
<tr>
<td>1212.5</td>
<td>1</td>
<td>Pipes, plastics</td>
<td>Fatigue Test</td>
<td>Delete</td>
<td>WIS 4-32-06 Appendix C</td>
<td>Delete, this test is over and above that considered acceptable to show compliance with the Water Regulations</td>
</tr>
<tr>
<td>1212.6</td>
<td>1</td>
<td>Fittings and pipes etc not for continuous HW use</td>
<td>Accelerated Ageing</td>
<td>Current</td>
<td>WRAS Generic test</td>
<td>None</td>
</tr>
<tr>
<td>1212.7</td>
<td>1</td>
<td>Float operated switches including HW use</td>
<td>Accelerated Ageing</td>
<td>Current</td>
<td>WRAS Generic test</td>
<td>None</td>
</tr>
<tr>
<td>1212.10</td>
<td>1</td>
<td>Fittings and pipe etc for continuous HW use</td>
<td>Accelerated Ageing</td>
<td>Current</td>
<td>BS 7291 Pts 1/2/3/4</td>
<td>None</td>
</tr>
<tr>
<td>1212.11</td>
<td>1</td>
<td>BA Valves-reduced pressure zone</td>
<td>Elevated Temperature</td>
<td>Delete</td>
<td>Pr EN 164108</td>
<td>Superseded by Regulators’ Specification 1211.22</td>
</tr>
<tr>
<td>1212.12</td>
<td>1</td>
<td>BA Valves-reduced pressure zone</td>
<td>Thermal Shock</td>
<td>Delete</td>
<td>Pr EN 164108</td>
<td>Superseded by Regulators’ Specification 1211.22</td>
</tr>
<tr>
<td>Test Procedure Number</td>
<td>Issue No.</td>
<td>TYPE OF FITTINGS</td>
<td>PROCEDURE</td>
<td>Status</td>
<td>STANDARDS REFERRED</td>
<td>ACTION REQUIRED</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------</td>
<td>-----------------</td>
<td>-----------</td>
<td>--------</td>
<td>-------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>1311.1</td>
<td>1</td>
<td>Cistern lids, all materials</td>
<td>Deflection</td>
<td>Compile</td>
<td>WRAS Generic test</td>
<td>Compile with BS EN 13280 Annex J</td>
</tr>
<tr>
<td>1311.2</td>
<td>1</td>
<td>Plastic Floats</td>
<td>Deflection</td>
<td>Delete</td>
<td>BS 2456 Section 4 Appendix D</td>
<td>Delete, test has no relevance to the Water Regulations</td>
</tr>
<tr>
<td>1311.3</td>
<td>1</td>
<td>Backing Plate</td>
<td>Deflection</td>
<td>Delete</td>
<td>BS 4213 Appendix R</td>
<td>Delete, test has no relevance to the Water Regulations</td>
</tr>
<tr>
<td>1311.4</td>
<td>1</td>
<td>Valves, float operated, all uses</td>
<td>Deflection</td>
<td>Current</td>
<td>WRAS Generic test BS 1212 Pt 1 Clause 15C BS 1212 Pt 3 Clause 20.4</td>
<td>None</td>
</tr>
<tr>
<td>1311.5</td>
<td>1</td>
<td>Cisterns, plastics</td>
<td>Deflection</td>
<td>Replace</td>
<td>WRAS Generic test BS 4213 Section 8.2</td>
<td>None</td>
</tr>
<tr>
<td>1312.1</td>
<td>1</td>
<td>Cisterns, plastics</td>
<td>Deformation</td>
<td>Replace</td>
<td>WRAS Generic test BS 4213 Clause 8.1.1/2</td>
<td>None</td>
</tr>
<tr>
<td>1312.2</td>
<td>1</td>
<td>Compression fittings (metal) for imperial plastics tubes</td>
<td>Deformation</td>
<td>Current/Ob</td>
<td>WRAS Generic test BS 864 Part 3 Clause 21</td>
<td>Current obsolescent New plastic pipe materials and joints see 7.3 and appendix B</td>
</tr>
<tr>
<td>1312.3</td>
<td>1</td>
<td>Type ‘E’ backflow device</td>
<td>Deformation</td>
<td>Compile</td>
<td>BS 6282 Pt 1 Clause A.8</td>
<td>Compile with current prEN 13959 Clause 11.4</td>
</tr>
<tr>
<td>1312.5</td>
<td>1</td>
<td>Floats, all materials - all applications</td>
<td>Deformation - Boss</td>
<td>Current</td>
<td>BS 2456 Clause 4.5</td>
<td>None</td>
</tr>
<tr>
<td>1312.6</td>
<td>1</td>
<td>WC Flushing Cisterns</td>
<td>Deformation</td>
<td>Delete</td>
<td>BS 7357 Sec 2 Clause 5 BS 1125 Sec 2 Clause 5</td>
<td>Superseded by Regulators’ Specifications for WC suites</td>
</tr>
<tr>
<td>1312.7</td>
<td>1</td>
<td>Cisterns, GRP (one piece)</td>
<td>Impact</td>
<td>Compile</td>
<td>BS 7491 Pt 1/2</td>
<td>Compile with BS EN 13280 Annex C.1 &amp; f &amp; clause 7.2.2</td>
</tr>
<tr>
<td>1312.8</td>
<td>1</td>
<td>Automatic Flushing Urinal</td>
<td>Deformation</td>
<td>Delete</td>
<td>WRAS Generic test</td>
<td>Delete, test has no relevance to the Water Regulations</td>
</tr>
<tr>
<td>1312.9</td>
<td>1</td>
<td>Compression fittings, metal or plastics, for metric plastics tubes</td>
<td>Deformation</td>
<td>Current/Ob</td>
<td>WRAS Generic test BS 864 Pt 4 Clause 11.3 BS 5114 Appendix B</td>
<td>None, Add reference to BS EN 1254-3 clause 5.5 New plastic pipe materials and joints see 7.3 and appendix B</td>
</tr>
<tr>
<td>1312.10</td>
<td>1</td>
<td>Cisterns, GRP (sectional)</td>
<td>Impact</td>
<td>Compile</td>
<td>BS 7491 Pt 3</td>
<td>Compile with BS EN 13280 Annex C.2 clause 7.2.2</td>
</tr>
<tr>
<td>Test Procedure Number</td>
<td>Issue No.</td>
<td>TYPE OF FITTINGS</td>
<td>PROCEDURE</td>
<td>Status</td>
<td>STANDARDS REFERRED</td>
<td>ACTION REQUIRED</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------</td>
<td>------------------</td>
<td>------------------</td>
<td>-----------</td>
<td>---------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>1312.11</td>
<td>1</td>
<td>Type 'CA' backflow device</td>
<td>Bending Strength</td>
<td>Compile</td>
<td>Pr EN W1097 Clause 9.4.2</td>
<td>Compile with current prEN 14367 Clause 9.4.2</td>
</tr>
<tr>
<td>1312.12</td>
<td>1</td>
<td>Type 'DC' backflow device</td>
<td>Bending Strength</td>
<td>Compile</td>
<td>Pr EN W1114 Clause 11.2</td>
<td>Compile with current prEN 14453 Clause 10.4</td>
</tr>
<tr>
<td>1312.13</td>
<td>1</td>
<td>Type 'DB' backflow device</td>
<td>Bending Strength</td>
<td>Compile</td>
<td>Pr EN W1112 Clause 11.4</td>
<td>Compile with current prEN 14452 Clause 10.6</td>
</tr>
<tr>
<td>1312.14</td>
<td>1</td>
<td>Type 'BA' backflow device</td>
<td>Bending Strength</td>
<td>Compile</td>
<td>Pr EN 12729 Clause 9.4.3</td>
<td>Compile with current BS EN 12729 Clause 9.5.3</td>
</tr>
<tr>
<td>1312.15</td>
<td>1</td>
<td>Type 'DA' backflow device</td>
<td>Bending Strength</td>
<td>Compile</td>
<td>Pr EN W1111 Clause 11.4</td>
<td>Compile with current prEN 14451 Clause 10.6</td>
</tr>
<tr>
<td>1312.16</td>
<td>1</td>
<td>Type 'LA' backflow device</td>
<td>Bending Strength</td>
<td>Compile</td>
<td>Pr En WI D58</td>
<td>Compile with current prEN 14455 Clause 10.8</td>
</tr>
<tr>
<td>1312.17</td>
<td>1</td>
<td>Type 'HA' backflow device</td>
<td>Bending Strength</td>
<td>Compile</td>
<td>Pr EN W1108 Clause 6.4</td>
<td>Compile with current prEN 14454 Clause 10.7</td>
</tr>
<tr>
<td>1313.1</td>
<td>1</td>
<td>Floats, all materials - all applications</td>
<td>Impact</td>
<td>Compile</td>
<td>BS 2456 Section 4.3</td>
<td>None</td>
</tr>
<tr>
<td>1313.2</td>
<td>1</td>
<td>Flushing Cisterns</td>
<td>Impact</td>
<td>Delete</td>
<td>BS 1125 Section 2 Clause 5</td>
<td>Superseded by Regulators’ Specifications for WC suites</td>
</tr>
<tr>
<td>1313.4</td>
<td>1</td>
<td>Type ‘E’ backflow device</td>
<td>Valve Opening</td>
<td>Delete</td>
<td>Pr EN 164176 Clause 7.7</td>
<td>Incorporated in clause 11.6 see TCS 1111.10</td>
</tr>
<tr>
<td>1313.7</td>
<td>1</td>
<td>Type ‘E’ backflow device</td>
<td>High Flow Rate</td>
<td>Compile</td>
<td>Pr EN 164167 Clause 7.1</td>
<td>Compile with current prEN 13959 Clause 11.1</td>
</tr>
<tr>
<td>1314.1</td>
<td>1</td>
<td>Compression fittings (metal/plastics) for imperial plastics tubes</td>
<td>Tension</td>
<td>Current/Ob</td>
<td>BS 864 Pt 3 BS 5114</td>
<td>Maintain, BS EN 1254-3 does not include imperial sizes New plastic pipe materials and joints see 7.3 and appendix B</td>
</tr>
<tr>
<td>1314.4</td>
<td>1</td>
<td>Floats - all materials - all applications</td>
<td>Tension</td>
<td>Current</td>
<td>BS 2456 Section 4.4</td>
<td>None</td>
</tr>
<tr>
<td>1314.5</td>
<td>1</td>
<td>WC Flushing Cisterns</td>
<td>Compression</td>
<td>Delete</td>
<td>BS 7357 Clause 5 BS 1125 Clause 5</td>
<td>Superseded by Regulators’ Specifications for WC suites</td>
</tr>
<tr>
<td>1314.6</td>
<td>1</td>
<td>DA Vacuum Breakers</td>
<td>Tension</td>
<td>Delete</td>
<td>WRAS Generic test BS 6262 Pt 3 Appendix B</td>
<td>Delete Superseded by Regulators’ Specifications for Backflow prevention TCS 1312.15</td>
</tr>
<tr>
<td>1314.7</td>
<td>1</td>
<td>Compression fittings (metal/plastics) for metric plastics tubes</td>
<td>Tension - Single</td>
<td>Current/Ob</td>
<td>BS 864 Pt 4 Clause 11.8</td>
<td>None, add ref to BS EN 1254-3 clause 5.4 New plastic pipe materials and joints see 7.3 and appendix B</td>
</tr>
<tr>
<td>Test Procedure Number</td>
<td>Issue No.</td>
<td>TYPE OF FITTINGS</td>
<td>PROCEDURE</td>
<td>Status</td>
<td>STANDARDS REFERRED</td>
<td>ACTION REQUIRED</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------</td>
<td>------------------</td>
<td>-----------</td>
<td>--------</td>
<td>-------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>1314.8</td>
<td>1</td>
<td>Compression fittings (metal/plastics) for metric plastics tubes</td>
<td>Tension - Multiple</td>
<td>Delete</td>
<td>BS 864 Pt 5 Clause 11.7</td>
<td>Delete, no multiple tension test in BS EN 1254, spec 1314.7 covers this requirement.</td>
</tr>
<tr>
<td>1314.9</td>
<td>1</td>
<td>Compression fittings (metal/plastics) for metric copper tubes</td>
<td>Tension</td>
<td>Current/Ob</td>
<td>Derived from BS 7291 Pt 4 Table 3 BS 864 Pt 5 Table 5</td>
<td>The standards have been superseded by BS EN 1254-2; however the test is more demanding, therefore retain the existing criteria. New plastic pipe materials and joints see 7.3 and appendix B</td>
</tr>
<tr>
<td>1314.10</td>
<td>1</td>
<td>Compression fittings (metal/plastics) for metric lead tubes</td>
<td>Tension</td>
<td>Current</td>
<td>Derived from BS 7291 Pt 4 Table 3 BS 864 Pt 5 Table 5</td>
<td>None, no standard for lead pipe</td>
</tr>
<tr>
<td>1314.11</td>
<td>1</td>
<td>Fittings (metal/plastics) for use with polybutylene pipe</td>
<td>Tension</td>
<td>Current</td>
<td>BS 7291 Pt 2 Clause 3.10.1</td>
<td>None</td>
</tr>
<tr>
<td>1314.12</td>
<td>1</td>
<td>Fittings (metal/plastics) for use with cross-linked polyethylene (PEX) pipe</td>
<td>Tension</td>
<td>Current</td>
<td>BS 7291 Pt 3 Clause 3.10.1</td>
<td>None</td>
</tr>
<tr>
<td>1314.13</td>
<td>1</td>
<td>Fittings (metal/plastics) for use with polyvinyl chloride (PVC-C) pipe</td>
<td>Tension</td>
<td>Current</td>
<td>BS 7291 Pt 4 Clause 3.10.2</td>
<td>None</td>
</tr>
<tr>
<td>1314.14</td>
<td>1</td>
<td>Compression fittings (metal/plastics) for use with galvanised steel pipe</td>
<td>Tension</td>
<td>Current</td>
<td>WRAS Generic test Above and below ground</td>
<td>None</td>
</tr>
<tr>
<td>1314.15</td>
<td>1</td>
<td>Push-fit fittings metric</td>
<td>Tension</td>
<td>Current</td>
<td>WRAS Generic test</td>
<td>None</td>
</tr>
<tr>
<td>1315.1</td>
<td>1</td>
<td>Taps, draw-off, metal/plastics</td>
<td>Torque</td>
<td>Compile</td>
<td>BS 5412 clause 11.1</td>
<td>Compile with current prEN 200 clause 10.1</td>
</tr>
<tr>
<td>1315.2</td>
<td>1</td>
<td>Compression Pipe Fittings</td>
<td>Torque</td>
<td>Delete</td>
<td>WRAS Generic test</td>
<td>Delete, test has no relevance to the Water Regulations</td>
</tr>
<tr>
<td>1315.4</td>
<td>1</td>
<td>Backnuts</td>
<td>Torque</td>
<td>Delete</td>
<td>WRAS Generic test</td>
<td>Delete, test has no relevance to the Water Regulations</td>
</tr>
<tr>
<td>1315.5</td>
<td>1</td>
<td>Taps, draw off, metal/plastics</td>
<td>Torque</td>
<td>Delete</td>
<td>WRAS Generic test</td>
<td>Delete, test has no relevance to the Water Regulations</td>
</tr>
<tr>
<td>1315.6</td>
<td>1</td>
<td>Float Operated Valves</td>
<td>Torque</td>
<td>Delete</td>
<td>BS 1212 Pt 3 Appendix A</td>
<td>Delete, test has no relevance to the Water Regulations</td>
</tr>
<tr>
<td>1321.1</td>
<td>1</td>
<td>Tubes – copper</td>
<td>Deletious Film</td>
<td>Replace</td>
<td>BS 2871 Pt 1’</td>
<td>Replace with BS EN 1057 clause 6.5, 8.5 and Appendix B</td>
</tr>
<tr>
<td>Test Procedure Number</td>
<td>Issue No.</td>
<td>TYPE OF FITTINGS</td>
<td>PROCEDURE</td>
<td>Status</td>
<td>STANDARDS REFERRED</td>
<td>ACTION REQUIRED</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------</td>
<td>------------------</td>
<td>--------------------------------</td>
<td>----------</td>
<td>------------------------------------------------------------------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>1411.1</td>
<td>1</td>
<td>All applicable fittings</td>
<td>Dezincification Resistance</td>
<td>Current</td>
<td>BS EN ISO 6509 AS 2345 Table 1</td>
<td>None</td>
</tr>
<tr>
<td>1411.2</td>
<td>1</td>
<td>Safety valves</td>
<td>Corrosion Protection</td>
<td>Delete</td>
<td>WRAS Generic test</td>
<td>Covered by 1411.1</td>
</tr>
<tr>
<td>1411.3</td>
<td>1</td>
<td>WC drop &amp; flap valves</td>
<td>Corrosion Protection</td>
<td>Current</td>
<td>Regulators' Specification</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Regulators’ Specification for WC suites, Refer to BS EN 997 Clause 6.8</td>
<td></td>
</tr>
<tr>
<td>1412.1</td>
<td>1</td>
<td>All applicable fittings</td>
<td>Corrosion Protection</td>
<td>Current</td>
<td>PD 6484</td>
<td>Remove reference to PD 6484; maintain procedure, as this is still valid.</td>
</tr>
<tr>
<td>1430.1</td>
<td>1</td>
<td>Combination HW storage units</td>
<td>Temperature Rise</td>
<td>Current</td>
<td>BS 3198 3 types of heater</td>
<td>None</td>
</tr>
<tr>
<td>1511.1</td>
<td>1</td>
<td>Type 'CA' backflow device</td>
<td>Visual Inspection</td>
<td>Compile</td>
<td>Pr EN W1097 Clause 9.6.3</td>
<td>Compile with current prEN 14367 Clause 9.6.3</td>
</tr>
<tr>
<td>1511.2</td>
<td>1</td>
<td>Cisterns, WC flushing - all materials</td>
<td>Flush Rate</td>
<td>Current</td>
<td>Regulators’ Specification</td>
<td>None</td>
</tr>
<tr>
<td>1511.3</td>
<td>1</td>
<td>Taps - spray mixing, If no plug</td>
<td>Flowrate</td>
<td>Current</td>
<td>BS EN 5779 clause 10, 12 Appendix D, E &amp; F.</td>
<td>None</td>
</tr>
<tr>
<td>1511.5</td>
<td>1</td>
<td>Taps – spray</td>
<td>Flowrate</td>
<td>Current</td>
<td>BS 5388 Clause 12 with 1511.4</td>
<td>None</td>
</tr>
<tr>
<td>1511.6</td>
<td>1</td>
<td>Type 'DC' backflow device</td>
<td>Flowrate/Splashing</td>
<td>Current</td>
<td>Pr EN W1114 Clause 11.2</td>
<td>Replace title with current prEN 14453 Clause 10.6 but maintain the existing criteria.</td>
</tr>
<tr>
<td>1512.1</td>
<td>1</td>
<td>Washing machines, clothes, with or without driers</td>
<td>Consumption</td>
<td>Current</td>
<td>WRAS Generic test</td>
<td>Specification outdated, BS EN 60456 has a consumption test, but has no criteria for max consumption</td>
</tr>
<tr>
<td>1512.2</td>
<td>1</td>
<td>Reverse Osmosis units</td>
<td>Consumption</td>
<td>Current</td>
<td>WRAS Generic test</td>
<td>PrEN 14652 does not set a value for the consumption/waste value. Maintain current procedure</td>
</tr>
<tr>
<td>1512.3</td>
<td>1</td>
<td>Tumble Driers</td>
<td>Consumption</td>
<td>Current</td>
<td>WRAS Generic test</td>
<td>None</td>
</tr>
<tr>
<td>1512.4</td>
<td>1</td>
<td>Washing machines, dish</td>
<td>Consumption</td>
<td>Replace</td>
<td>Refers to BS 3999 pt 11 for place settings</td>
<td>Replace with the Regulation requirement for domestic dishwashing machines as G29.3</td>
</tr>
<tr>
<td>1512.5</td>
<td>1</td>
<td>WC pans, washdown type</td>
<td>Consumption</td>
<td>Delete</td>
<td>BS 5503 pt 3 section 3 Appendix A BS 5504 pt 3 section 4 Appendix A BS 7358 section 3 Appendix A</td>
<td>Superseded by Regulators’ Specifications for WC suites</td>
</tr>
<tr>
<td>Test Procedure Number</td>
<td>Issue No.</td>
<td>TYPE OF FITTINGS</td>
<td>PROCEDURE</td>
<td>Status</td>
<td>STANDARDS REFERRED</td>
<td>ACTION REQUIRED</td>
</tr>
<tr>
<td>-----------------------</td>
<td>----------</td>
<td>-------------------------------------------------</td>
<td>-----------------</td>
<td>-------------</td>
<td>-----------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1512.8</td>
<td>1</td>
<td>Ice making machines</td>
<td>Consumption</td>
<td>Current</td>
<td>WRAS Generic Test</td>
<td>None</td>
</tr>
<tr>
<td>1512.9</td>
<td>1</td>
<td>Water softeners, salt regenerated ion exchange</td>
<td>Consumption</td>
<td>Current</td>
<td>WRAS Generic Test</td>
<td>PrEN 14743 does not set a value for the consumption/waster value. Maintain current procedure</td>
</tr>
<tr>
<td>1512.10</td>
<td>1</td>
<td>WC Suites</td>
<td>Flush Test</td>
<td>Current</td>
<td>Regulators’ Specification</td>
<td>Regulators’ Specification for WC suites, Refer to BS EN 997 Clause 6.10</td>
</tr>
<tr>
<td>1512.11</td>
<td>1</td>
<td>WC Suites</td>
<td>Flush Test</td>
<td>Current</td>
<td>Regulators’ Specification</td>
<td>Regulators’ Specification for WC suites, Refer to BS EN 997 Clause 6.9</td>
</tr>
<tr>
<td>1611.1</td>
<td>1</td>
<td>Cylinders, indirect, coil primary</td>
<td>Contamination</td>
<td>Delete</td>
<td>BS 1566 pt 1 clause 8.4, table 2</td>
<td>Delete, test has no relevance to the Water regulations</td>
</tr>
<tr>
<td>1611.2</td>
<td>1</td>
<td>Heaters, electric, thermal storage/ instantaneous</td>
<td>Design</td>
<td>Current</td>
<td>BS 6700 clause 10.6</td>
<td>Document current but requires reference to BS EN 60335-2-21</td>
</tr>
<tr>
<td>1611.3</td>
<td>1</td>
<td>Heaters, electric, thermal storage</td>
<td>Design</td>
<td>Current</td>
<td>BS 843 clause 10</td>
<td>Very Generic test requirement for all heaters</td>
</tr>
<tr>
<td>1611.4</td>
<td>1</td>
<td>Cisterns, deep and narrow or for poor access situations</td>
<td>Accessibility</td>
<td>Current</td>
<td>BS 3198 clause 18</td>
<td>None</td>
</tr>
<tr>
<td>1611.5</td>
<td>1</td>
<td>Pipes, Valves &amp; Fittings</td>
<td>Design</td>
<td>Delete</td>
<td>BS 864 pt 2 clause 11.4, 11.5 BS 864 pt 3 clause 14, 17 WRAS Generic test BS 1010 pt 2 clause 4.12 BS 5433 clause 26 BS 5412/3 pt 1 clause 9</td>
<td>Test has no relevance to the Water Regulations</td>
</tr>
<tr>
<td>1611.6</td>
<td>1</td>
<td>Haemodialysis</td>
<td>Backflow</td>
<td>Delete</td>
<td>WRAS Generic Test (air gap)</td>
<td>Superseded by TCS 2213.1 &amp; 2213.12 (AA &amp; AB Air gap)</td>
</tr>
<tr>
<td>1611.7</td>
<td>4</td>
<td>WC cisterns</td>
<td>Flushing</td>
<td>Delete</td>
<td>BS 7357 section 2 clause 8 BS 1125 section 2 clause 8</td>
<td>Superseded by Regulators’ Specifications for WC suites</td>
</tr>
<tr>
<td>1611.8</td>
<td>1</td>
<td>Drain valves and stop valves</td>
<td>Renewal of seat washer</td>
<td>Current</td>
<td>WRAS Generic Test</td>
<td>Ensures compliance with G2.7</td>
</tr>
<tr>
<td>1611.9</td>
<td>1</td>
<td>Valves, stop</td>
<td>Washer Plate</td>
<td>Current</td>
<td>WRAS Generic Test</td>
<td>Ensures compliance with G2.7</td>
</tr>
<tr>
<td>1611.10</td>
<td>1</td>
<td>Servicing Valve</td>
<td>Operation</td>
<td>Delete</td>
<td>BS 6675 section 2 clause 6.2</td>
<td>Test has no relevance to the Water Regulations</td>
</tr>
<tr>
<td>Test Procedure Number</td>
<td>Issue No.</td>
<td>TYPE OF FITTINGS</td>
<td>PROCEDURE</td>
<td>Status</td>
<td>STANDARDS REFERRED</td>
<td>ACTION REQUIRED</td>
</tr>
<tr>
<td>-----------------------</td>
<td>----------</td>
<td>------------------------------------------------------</td>
<td>--------------------------------------------</td>
<td>---------</td>
<td>------------------------------------------------------------</td>
<td>------------------------------------------------------</td>
</tr>
<tr>
<td>1611.11</td>
<td>1</td>
<td>Taps, draw-off and valves, float operated</td>
<td>Renewal of seat washer</td>
<td>Current</td>
<td>WRAS Generic Test</td>
<td>Ensures compliance with G2.7</td>
</tr>
<tr>
<td>1611.13</td>
<td>1</td>
<td>BA Valves-reduced pressure zone</td>
<td>Accessible - Refitting</td>
<td>Compile</td>
<td>Doc N706E clause 8.2.1</td>
<td>Compile with current BS EN 12729 Clause 8</td>
</tr>
<tr>
<td>1611.14</td>
<td>1</td>
<td>Pressure/temperature, expansion, pressure relief valves</td>
<td>Easing Gear Operation</td>
<td>Current</td>
<td>BS 6283 pt 1-3 section 3.8</td>
<td>Not specified by Building valve standards BS EN 1487-1491</td>
</tr>
<tr>
<td>1611.15</td>
<td>1</td>
<td>WC Flushing cisterns</td>
<td>Operation</td>
<td>Current</td>
<td>Regulators’ Specifications</td>
<td>Regulators’ Specification for WC suites</td>
</tr>
<tr>
<td>1611.16</td>
<td>1</td>
<td>WC Suites</td>
<td>Flush Dye Retention</td>
<td>Current</td>
<td>Regulators’ Specifications</td>
<td>Regulators’ Specification for WC suites, Refer to BS EN 997 Clause 6.11</td>
</tr>
<tr>
<td>1612.1</td>
<td>1</td>
<td>WC Flushing Cistern</td>
<td>Water Tightness</td>
<td>Delete</td>
<td>BS 7357 section 2 clause 8 BS 1125 section 2 clause 8</td>
<td>Superseded by Regulators’ Specifications for WC suites</td>
</tr>
<tr>
<td>1711.2</td>
<td>1</td>
<td>Switching Devices</td>
<td>Efficiency</td>
<td>Delete</td>
<td>WRAS Generic Test</td>
<td>Requirement covered by other Regulators’ Specifications</td>
</tr>
<tr>
<td>2111.1</td>
<td>1</td>
<td>All fittings as applicable</td>
<td>Non-metallic Contamination</td>
<td>Current</td>
<td>BS 6920 pt 2 &amp; IGN 9-01-02</td>
<td>Refer to WRAS Mat procedure documents 1 to 4</td>
</tr>
<tr>
<td>2111.2</td>
<td>1</td>
<td>Valves, check, double, for CO₂ injected vending machines</td>
<td>Effect upon Water Quality</td>
<td>Current</td>
<td>WRAS Generic Test</td>
<td>Not specified in EN 13959, therefore maintain specification</td>
</tr>
<tr>
<td>2111.3</td>
<td>1</td>
<td>All soldered fittings</td>
<td>Effect upon water quality (solder)</td>
<td>Current</td>
<td>WRAS Generic Test</td>
<td>None</td>
</tr>
<tr>
<td>2114.2</td>
<td>1</td>
<td>All non-metallic water fittings as applicable</td>
<td>Light Exclusion</td>
<td>Current</td>
<td>BS EN 578</td>
<td>None</td>
</tr>
<tr>
<td>2211.1</td>
<td>1</td>
<td>Fire sprinkler tanks type A air gap</td>
<td>Practical test A air gap</td>
<td>Delete</td>
<td>WRAS Generic Test</td>
<td>Superseded by TCS 2213.1 &amp; 2213.12 (AA &amp; AB Air gaps)</td>
</tr>
<tr>
<td>2211.2</td>
<td>1</td>
<td>Fittings for tube and compatible assemblies</td>
<td>Contamination</td>
<td>Current</td>
<td>WRAS Generic Test</td>
<td>Generic test that applies to all pipes &amp; fittings</td>
</tr>
<tr>
<td>2211.3</td>
<td>1</td>
<td>CTA - Double outlet</td>
<td>Contamination</td>
<td>Compile</td>
<td>WRAS Generic test believed to be derived from BS 5412; 2 options, single or divided outlet.</td>
<td>Compile with prEN 200 (rev) clause 11.3 (double outlet)</td>
</tr>
<tr>
<td>2211.4</td>
<td>1</td>
<td>Combination HW storage units</td>
<td>Contamination</td>
<td>Current</td>
<td>BS 3198 Appendix C and D</td>
<td>None</td>
</tr>
<tr>
<td>2211.5</td>
<td>1</td>
<td>Cylinders, indirect, single feed. Cross mixing</td>
<td>Contamination</td>
<td>Current</td>
<td>BS 1566 pt 2</td>
<td>None</td>
</tr>
<tr>
<td>Test Procedure Number</td>
<td>Issue No.</td>
<td>TYPE OF FITTINGS</td>
<td>PROCEDURE</td>
<td>Status</td>
<td>STANDARDS REFERRED</td>
<td>ACTION REQUIRED</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------</td>
<td>-------------------</td>
<td>-----------</td>
<td>--------</td>
<td>-------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>2211.11</td>
<td>1</td>
<td>Cisterns, cold water storage</td>
<td>Contamination</td>
<td>Current</td>
<td>BS 7181 clause 6.1 &amp; Appendix B</td>
<td>None</td>
</tr>
<tr>
<td>2212.1</td>
<td>1</td>
<td>Type ‘B’ air gap washing machine</td>
<td>Contamination</td>
<td>Delete</td>
<td>WRAS Generic Test, references appropriate Regulators’ Specifications.</td>
<td>Refer to appropriate Air Gap AA, AB, AC, and AG. BS EN ISO 61770 is available however the standard is very poor. Criteria available under air gaps</td>
</tr>
<tr>
<td>2212.3</td>
<td>1</td>
<td>Type ‘AG’ air gap</td>
<td>Contamination - AG</td>
<td>Compile</td>
<td>Pr EN 13077</td>
<td>Replace with current pr EN 14623</td>
</tr>
<tr>
<td>2212.4</td>
<td>1</td>
<td>Valves, float operated, diaphragm</td>
<td>Contamination</td>
<td>Current</td>
<td>BS 1212 pt 2 clause 4.10.1 &amp; 5.3 BS 1212 pt 3 clause 22.1 &amp; 25</td>
<td>None</td>
</tr>
<tr>
<td>2212.6</td>
<td>1</td>
<td>Type ‘HC’ backflow device</td>
<td>Contamination</td>
<td>Compile</td>
<td>BS 5412 clause 13</td>
<td>Compile with prEN 14506 clause 10.6</td>
</tr>
<tr>
<td>2212.7</td>
<td>1</td>
<td>Vacuum test type ‘B’ air gap</td>
<td>Contamination</td>
<td>Delete</td>
<td>IGN 5-11-03 BS 6282 pt 3 clause 10 appendix A BS 6282 pt4 clause 8</td>
<td>Superseded by TCS 2213.3 (AG Air gap)</td>
</tr>
<tr>
<td>2212.8</td>
<td>1</td>
<td>Backflow test washing machines</td>
<td>Contamination</td>
<td>Delete</td>
<td>BS 6614 CENELEC HD 274</td>
<td>Superseded by TCS 2212.3 (AG Air gap), ISO 61770 is available, however the standard is very poor</td>
</tr>
<tr>
<td>2212.9</td>
<td>1</td>
<td>Type ‘BA’ backflow device</td>
<td>Vacuum</td>
<td>Delete</td>
<td>AS 2845.1 appendix AN</td>
<td>Test is not required in BS EN</td>
</tr>
<tr>
<td>2212.10</td>
<td>1</td>
<td>Tundish. Air gap to drain</td>
<td>Dimensional</td>
<td>Current</td>
<td>BS EN 1717 clause 9</td>
<td>None</td>
</tr>
<tr>
<td>2212.11</td>
<td>1</td>
<td>Type ‘CA’ backflow device</td>
<td>Vacuum</td>
<td>Compile</td>
<td>Pr EN W1097 C25 clause 9.5.4</td>
<td>Compile with current prEN 14367 Clause 9.5.4</td>
</tr>
<tr>
<td>2212.12</td>
<td>1</td>
<td>Type ‘CA’ backflow device</td>
<td>Contamination</td>
<td>Delete</td>
<td>KIWA BRL K648/01/1990 clause 4.4</td>
<td>Not in 14367 &amp; covered by 2212.11</td>
</tr>
<tr>
<td>2212.13</td>
<td>1</td>
<td>Type ‘DB’ backflow device</td>
<td>Vacuum</td>
<td>Compile</td>
<td>CEN TC 164 W1 112 clause 11.8</td>
<td>Compile with current prEN 14452 Clause 10.0</td>
</tr>
<tr>
<td>2212.14</td>
<td>1</td>
<td>Type ‘DB’ backflow device</td>
<td>Vacuum</td>
<td>Compile</td>
<td>CEN TC W1 112 clause 11.2</td>
<td>Compile with current prEN 14452 Clause 10.4</td>
</tr>
<tr>
<td>2212.15</td>
<td>1</td>
<td>Type ‘DC’ backflow device</td>
<td>Contamination</td>
<td>Compile</td>
<td>PR TC W1 114 clause 11.3</td>
<td>Compile with current prEN 14453 Clause 10.5</td>
</tr>
<tr>
<td>2212.16</td>
<td>1</td>
<td>Type ‘HA’ backflow device</td>
<td>Vacuum</td>
<td>Compile</td>
<td>Pr EN W1 108 clause 6.8</td>
<td>Compile with current prEN 14454 Clause 10.10</td>
</tr>
<tr>
<td>Test Procedure Number</td>
<td>Issue No.</td>
<td>TYPE OF FITTINGS</td>
<td>PROCEDURE</td>
<td>Status</td>
<td>STANDARDS REFERRED</td>
<td>ACTION REQUIRED</td>
</tr>
<tr>
<td>-----------------------</td>
<td>----------</td>
<td>------------------</td>
<td>-----------</td>
<td>---------</td>
<td>--------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>2212.17</td>
<td>1</td>
<td>Type 'DA' backflow device</td>
<td>Contamination</td>
<td>Compile</td>
<td>Pr TC W1 111 clause 11.7</td>
<td>Compile with current prEN 14451 Clause 10.9</td>
</tr>
<tr>
<td>2212.18</td>
<td>1</td>
<td>Type 'LA' backflow device</td>
<td>Contamination</td>
<td>Compile</td>
<td>TC 164 WG4 W1 D58 clause 11.5</td>
<td>Compile with current prEN 14455 Clause 10.7</td>
</tr>
<tr>
<td>2212.19</td>
<td>1</td>
<td>Type 'LA' backflow device</td>
<td>Opening Pressure</td>
<td>Compile</td>
<td>TC 164 WG4 W1 D58 clause 11.7</td>
<td>Compile with current prEN 14455 Clause 10.9</td>
</tr>
<tr>
<td>2212.20</td>
<td>1</td>
<td>Cisterns, WC flushing</td>
<td>Backflow Prevention</td>
<td>Current</td>
<td>Regulators' Specifications</td>
<td>Regulators' Specification for WC suites, Refer to BS EN 997 Clause 6.2</td>
</tr>
<tr>
<td>2213.1</td>
<td>1</td>
<td>Type 'AA' air gap</td>
<td>Air gap 'AA'</td>
<td>Compile</td>
<td>Pr EN 13076</td>
<td>Compile with current BS EN 13076</td>
</tr>
<tr>
<td>2213.3</td>
<td>1</td>
<td>Heaters, gas, Gas/water space</td>
<td>Contamination</td>
<td>Current</td>
<td>WRAS Generic Test</td>
<td>None</td>
</tr>
<tr>
<td>2213.4</td>
<td>1</td>
<td>Urinal Flushing Cisterns</td>
<td>Air gap</td>
<td>Delete</td>
<td>WRAS Generic Test, air gap type B</td>
<td>Superseded by TCS 2213.18</td>
</tr>
<tr>
<td>2213.5</td>
<td>1</td>
<td>Valves, check, cartridges in separate body housings</td>
<td>Visual Inspection</td>
<td>Current</td>
<td>WRAS Generic Test</td>
<td>Not specified in prEN 13959, therefore maintain specification</td>
</tr>
<tr>
<td>2213.7</td>
<td>1</td>
<td>Type 'E' backflow device</td>
<td>Visual Inspection</td>
<td>Compile</td>
<td>ASSE 1024 &amp; 1015 clause 3.7 &amp; 3.6</td>
<td>Compile with current prEN 13959 Clause 8.4.1</td>
</tr>
<tr>
<td>2213.8</td>
<td>1</td>
<td>Type 'BA' backflow device</td>
<td>Pressure Differential</td>
<td>Compile</td>
<td>Pr EN 12729 clause 9.6.3</td>
<td>Replace with current BS EN 12729 Clause 9.7.3</td>
</tr>
<tr>
<td>2213.9</td>
<td>1</td>
<td>Type 'BA' backflow device</td>
<td>Pressure Differential</td>
<td>Delete</td>
<td>Doc N 706E clause 9.6.4</td>
<td>Superseded by TCS 1111.16</td>
</tr>
<tr>
<td>2213.10</td>
<td>1</td>
<td>Type 'CA' backflow device</td>
<td>Visual Inspection</td>
<td>Current</td>
<td>ASSE 1013 clause 3.5</td>
<td>None</td>
</tr>
<tr>
<td>2213.11</td>
<td>1</td>
<td>Type 'BA' backflow device</td>
<td>Visual Inspection</td>
<td>Current</td>
<td>ASSE 1013 clause 3.5</td>
<td>None</td>
</tr>
<tr>
<td>2213.12</td>
<td>1</td>
<td>Type 'AB' air gap</td>
<td>Air gap 'AB'</td>
<td>Compile</td>
<td>Pr EN 13077</td>
<td>Compile with current BS EN 13077</td>
</tr>
<tr>
<td>2213.13</td>
<td>1</td>
<td>Type 'E' backflow device</td>
<td>Pressure Differential</td>
<td>Compile</td>
<td>Pr EN 164167 clause 7.5</td>
<td>Compile with current prEN 13959 Clause 11.7</td>
</tr>
<tr>
<td>2213.14</td>
<td>1</td>
<td>Type 'AUK1' air gap</td>
<td>Air gap 'AUK1'</td>
<td>Current</td>
<td>Regulators' Specification</td>
<td>Regulators' Specification for Air Gap</td>
</tr>
<tr>
<td>Test Procedure Number</td>
<td>Issue No.</td>
<td>TYPE OF FITTINGS</td>
<td>PROCEDURE</td>
<td>Status</td>
<td>STANDARDS REFERRED</td>
<td>ACTION REQUIRED</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------</td>
<td>------------------</td>
<td>-----------------</td>
<td>--------</td>
<td>----------------------------------------</td>
<td>-------------------------------------------------</td>
</tr>
<tr>
<td>2213.15</td>
<td>1</td>
<td>Type 'AC' air gap</td>
<td>Air gap 'AC'</td>
<td>Compile</td>
<td>Pr EN 164105</td>
<td>Compile with current BS EN 13078</td>
</tr>
<tr>
<td>2213.16</td>
<td>1</td>
<td>Type 'AD' air gap</td>
<td>Air gap 'AD'</td>
<td>Compile</td>
<td>Pr EN 164106</td>
<td>Compile with current BS EN 13079</td>
</tr>
<tr>
<td>2213.17</td>
<td>1</td>
<td>Type 'AF' air gap</td>
<td>Air gap 'AF'</td>
<td>Compile</td>
<td>Pr EN 13077</td>
<td>Compile with current pr EN 14622</td>
</tr>
<tr>
<td>2213.18</td>
<td>1</td>
<td>Type 'AUK2' air gap</td>
<td>Air gap 'AUK2'</td>
<td>Current</td>
<td>Regulators' Specifications</td>
<td>None</td>
</tr>
<tr>
<td>2213.19</td>
<td>1</td>
<td>Type 'AUK3' air gap</td>
<td>Air gap 'AUK3'</td>
<td>Current</td>
<td>Regulators' Specifications</td>
<td>None</td>
</tr>
<tr>
<td>3212.1</td>
<td>7</td>
<td>WC Suites</td>
<td>Flush volume and water seal depth</td>
<td>Current</td>
<td>Regulators’ Specification</td>
<td>Regulators’ Specification for WC suites, Refer to BS EN 997 Clause 6.5</td>
</tr>
<tr>
<td>3212.2</td>
<td>1</td>
<td>Cisterns, urinal flushing</td>
<td>Flush Volume</td>
<td>Replace</td>
<td>Byelaws Specification</td>
<td>Replace with the Regulation requirement for urinals as G25.12 and G25.13</td>
</tr>
<tr>
<td>5011.1</td>
<td>1</td>
<td>All Fittings</td>
<td>Dimensional</td>
<td>Delete</td>
<td>WRAS Generic Test</td>
<td>Test has no relevance to the Water Regulations</td>
</tr>
<tr>
<td>5011.2</td>
<td>1</td>
<td>WC</td>
<td>Flushing</td>
<td>Delete</td>
<td>WRAS Generic Test air gap type B BS 7357 section 2</td>
<td>Superseded by Regulators’ Specifications for WC suites</td>
</tr>
<tr>
<td>5011.3</td>
<td>1</td>
<td>Cisterns, urinal flushing</td>
<td>Dimensional</td>
<td>Delete</td>
<td>WRAS Generic Test</td>
<td>Superseded by Regulators’ Specification for Backflow (AG Air Gap)</td>
</tr>
<tr>
<td>5011.5</td>
<td>1</td>
<td>WC Flushing Cisterns</td>
<td>Dimensional</td>
<td>Delete</td>
<td>WRAS Generic Test</td>
<td>Superseded by Regulators’ Specification for WC's</td>
</tr>
<tr>
<td>5011.6</td>
<td>1</td>
<td>WC Suites</td>
<td>Water Seal Depth</td>
<td>Current</td>
<td>Regulators’ Specification</td>
<td>Regulators’ Specification for WC suites, Refer to BS EN 997 Clause 6.13</td>
</tr>
<tr>
<td>5011.7</td>
<td>1</td>
<td>WC Suites</td>
<td>Dimension</td>
<td>Current</td>
<td>Regulators’ Specification</td>
<td>Regulators’ Specification for WC suites, Refer to BS EN 997 Clause 6.4</td>
</tr>
<tr>
<td>5021.1</td>
<td>1</td>
<td>All Fittings</td>
<td>Dimensional Area</td>
<td>Delete</td>
<td>WRAS Generic Test</td>
<td>Test has no relevance to the Water Regulations</td>
</tr>
<tr>
<td>5021.2</td>
<td>1</td>
<td>Support Plate Washers</td>
<td>Dimensional</td>
<td>Delete</td>
<td>BS 4213</td>
<td>Test has no relevance to the Water Regulations</td>
</tr>
<tr>
<td>5021.3</td>
<td>1</td>
<td>Type 'DA, DB &amp; DC' backflow devices</td>
<td>Dimension</td>
<td>Compile</td>
<td>Pr TC W1 111 clause 8.3 DA DB</td>
<td>Compile with current prEN 14451 Clause 10.3.2</td>
</tr>
</tbody>
</table>

23
<table>
<thead>
<tr>
<th>Issue No.</th>
<th>TYPE OF FITTINGS</th>
<th>PROCEDURE</th>
<th>Status</th>
<th>STANDARDS REFERRED</th>
<th>ACTION REQUIRED</th>
</tr>
</thead>
<tbody>
<tr>
<td>5031.1</td>
<td>Cisterns, tanks</td>
<td>Capacity</td>
<td>Delete</td>
<td>WRAS Generic Test And BS as appropriate</td>
<td>Capacity has no relevance for Water Regulations</td>
</tr>
<tr>
<td>5031.2</td>
<td>Cylinders</td>
<td>Capacity</td>
<td>Delete</td>
<td>WRAS Generic Test And BS as appropriate</td>
<td>Capacity has no relevance for Water Regulations</td>
</tr>
<tr>
<td>5031.3</td>
<td>Floats, all materials</td>
<td>Dimensional</td>
<td>Current</td>
<td>BS 2456 section 3.1 Appendix B BS 1968 section 2</td>
<td>None</td>
</tr>
<tr>
<td>6001.1</td>
<td>All fittings</td>
<td>Identification</td>
<td>Current</td>
<td>WRAS Generic Test BS 2871 pt1</td>
<td>None</td>
</tr>
</tbody>
</table>

Generic test OK but makes ref to BS 2871 pt1 this has been superseded by BS EN 1057, Refer to BS EN 997 Clause 6.3
APPENDIX B
1. SCOPE

This Regulators Specification identifies the performance requirements that must be complied with to ensure that the requirements of Regulation 4.(1)(a)&(b) are satisfied.

This Regulators Specification applies to: -
Air Gaps AA

2. REQUIREMENT

Air Gaps AA must be tested as and comply with the requirements/criteria stipulated in BS EN 13076.

And the Regulators Specifications 1412.1, 2111.1, 2114.2, 6001.1, 2213.11.

3. Regulatory Requirements

The Water Supply (Water Fittings) Regulations 1999 are to prevent the: Waste; Misuse; Undue Consumption or Contamination of the water supplied by the undertaker.

Regulation 4, Requirements for water fittings, requires:
(1) that every water fitting shall be of an approved quality and standard and be suitable for the circumstances in which it is used;
(2) has four options for determination of whether a water fitting is of an appropriate quality or standard – ie.
(a) it bears a CE mark; or,
(b) it conforms to an appropriate (CEN) EN or European Technical Approval; or,
(c) it conforms to an appropriate BS, or some other national specification of an EEA State which provide an equivalent level of protection and performance; or,
(d) it conforms to a specification approved by the regulator.

Many fittings (and product) are thereby specified under 4 (d), Regulators’ Specifications, to ensure that are of an appropriate quality and are suitable for the circumstances and function for which they are used.

Water Supply (Water Fittings) Regulations 1999 – Schedule 2 Paragraph(s): -

G2.5
The following factors should be considered when determining the suitability of materials and fittings which are, or will be, in contact with the water supplied:

a. internal and external temperatures to which they will be subjected;
b. the effect of internal and external corrosion;
c. compatibility of different materials;
d. the effect of ageing, fatigue, durability and other mechanical factors; and

e. permeability

G15.2
Avoidance of backflow should be achieved by good system design and the provision of suitable backflow prevention arrangements and devices, the type of which depends on the fluid category to which the wholesome water is discharged. A description of fluid risk categories is shown in Schedule 1 of the Regulations and some suggested examples relating to the fluid categories are shown in Schedule 1: Tables G6.1a to G6.1e.

S15.2
INTERPRETATIONS OF BACKFLOW PREVENTION ARRANGEMENTS AS LISTED IN TABLE S6.1

‘Type AA – Air gap with unrestricted discharge’ means a non-mechanical backflow prevention arrangement of water fittings where water is discharged through an air gap into a receptacle which has at all times an unrestricted spillover to the atmosphere.

A product or installation which satisfies the requirements of this specification will be deemed to meet the requirements of the Water Supply (Water Fitting) Regulations 1999.
1. **SCOPE**

This Regulators Specification identifies the performance requirements that must be complied with to ensure that the requirements of Regulation 4.1(a)&(b) are satisfied.

This Regulators Specification applies to: -
Air Gaps AB

2. **REQUIREMENT**

Air Gaps AB must be tested as and comply with the requirements/criteria stipulated in BS EN 13077.

And the Regulators Specifications 1412.1, 2111.1, 2114.2, 6001.1, 2213.11.

3. **Regulatory Requirements**

The Water Supply (Water Fittings) Regulations 1999 are to prevent the: Waste; Misuse; Undue Consumption or Contamination of the water supplied by the undertaker.

Regulation 4, Requirements for water fittings, requires:
(1) that every water fitting shall be of an approved quality and standard and be suitable for the circumstances in which it is used; 
(2) has four options for determination of whether a water fitting is of an appropriate quality or standard – ie.
(a) it bears a CE mark; or, 
(b) it conforms to an appropriate (CEN) EN or European Technical Approval; or, 
(c) it conforms to an appropriate BS, or some other national specification of an EEA State which provide an equivalent level of protection and performance; or,
(d) it conforms to a specification approved by the regulator.

Many fittings (and product) are thereby specified under 4 (d), Regulators’ Specifications, to ensure that are of an appropriate quality and are suitable for the circumstances and function for which they are used.

**Water Supply (Water Fittings) Regulations 1999 – Schedule 2 Paragraph(s):** -

G2.5
The following factors should be considered when determining the suitability of materials and fittings which are, or will be, in contact with the water supplied:

a. internal and external temperatures to which they will be subjected; 
b. the effect of internal and external corrosion; 
c. compatibility of different materials; 
d. the effect of ageing, fatigue, durability and other mechanical factors; and

e. permeability

G15.2
Avoidance of backflow should be achieved by good system design and the provision of suitable backflow prevention arrangements and devices, the type of which depends on the fluid category to which the wholesome water is discharged. A description of fluid risk categories is shown in Schedule 1 of the Regulations and some suggested examples relating to the fluid categories are shown in Schedule 1: Tables G6.1a to G6.1e.

S15.2
**INTERPRETATIONS OF BACKFLOW PREVENTION ARRANGEMENTS AS LISTED IN TABLE S6.1**

"Type AB – Air gap with weir overflow" means a non-mechanical backflow prevention arrangement of water fittings complying with Type AA, except that the air gap is the vertical distance from the lowest point of the discharge orifice which discharges into the receptacle, to the critical water level of the rectangular weir overflow.

A product or installation which satisfies the requirements of this specification will be deemed to meet the requirements of the Water Supply (Water Fitting) Regulations 1999.
1. **SCOPE**

This Regulators Specification identifies the performance requirements that must be complied with to ensure that the requirements of Regulation 4.(1)(a)&(b) are satisfied

This Regulators Specification applies to: -
Air Gaps AC

2. **REQUIREMENT**

Air Gaps AC must be tested as and comply with the requirements/criteria stipulated in BS EN 13078.

And the Regulators Specifications 1412.1, 2111.1, 2114.2, 6001.1, 2213.11.

3. **Regulatory Requirements**

The Water Supply (Water Fittings) Regulations 1999 are to prevent the: Waste; Misuse; Undue Consumption or Contamination of the water supplied by the undertaker.

Regulation 4, Requirements for water fittings, requires:

(1) that every water fitting shall be of an approved quality and standard and be suitable for the circumstances in which it is used;
(2) has four options for determination of whether a water fitting is of an appropriate quality or standard – i.e.
   (a) it bears a CE mark; or,
   (b) it conforms to an appropriate (CEN) EN or European Technical Approval; or,
   (c) it conforms to an appropriate BS, or some other national specification of an EEA State which provide an equivalent level of protection and performance; or,
   (d) it conforms to a specification approved by the regulator.

Many fittings (and product) are thereby specified under 4 (d), Regulators’ Specifications, to ensure that are of an appropriate quality and are suitable for the circumstances and function for which they are used.

**Water Supply (Water Fittings) Regulations 1999 – Schedule 2 Paragraph(s): -**

G2.5
The following factors should be considered when determining the suitability of materials and fittings which are, or will be, in contact with the water supplied:

a. internal and external temperatures to which they will be subjected;
b. the effect of internal and external corrosion;
c. compatibility of different materials;
d. the effect of ageing, fatigue, durability and other mechanical factors; and
e. permeability

G15.2
Avoidance of backflow should be achieved by good system design and the provision of suitable backflow prevention arrangements and devices, the type of which depends on the fluid category to which the wholesome water is discharged. A description of fluid risk categories is shown in Schedule 1 of the Regulations and some suggested examples relating to the fluid categories are shown in Schedule 1: Tables G6.1a to G6.1e.

S15.2
**INTERPRETATIONS OF BACKFLOW PREVENTION ARRANGEMENTS AS LISTED IN TABLE S6.1**

**"Type AC – Air gap with vented submerged inlet and circular overflow"** means a non-mechanical backflow prevention arrangement of water fittings with a vented, but submerged, inlet; the air gap being measured vertically downwards from the lowest point of the air inlet to the critical level.

A product or installation which satisfies the requirements of this specification will be deemed to meet the requirements of the Water Supply (Water Fitting) Regulations 1999.
1. **SCOPE**

This Regulators Specification identifies the performance requirements that must be complied with to ensure that the requirements of Regulation 4.1(a) & (b) are satisfied.

This Regulators Specification applies to: -
Air Gaps AD

2. **REQUIREMENT**

Air Gaps AD must be tested as and comply with the requirements/criteria stipulated in BS EN 13079.

And the Regulators Specifications 1412.1, 2111.1, 2114.2, 6001.1, 2213.11.

3. **Regulatory Requirements**

The Water Supply (Water Fittings) Regulations 1999 are to prevent the: Waste; Misuse; Undue Consumption or Contamination of the water supplied by the undertaker.

Regulation 4, Requirements for water fittings, requires:
(1) that every water fitting shall be of an approved quality and standard and be suitable for the circumstances in which it is used;
(2) has four options for determination of whether a water fitting is of an appropriate quality or standard – ie.
(a) it bears a CE mark; or,
(b) it conforms to an appropriate (CEN) EN or European Technical Approval; or,
(c) it conforms to an appropriate BS, or some other national specification of an EEA State which provide an equivalent level of protection and performance; or,
(d) it conforms to a specification approved by the regulator.

Many fittings (and product) are thereby specified under 4 (d), Regulators’ Specifications, to ensure that are of an appropriate quality and are suitable for the circumstances and function for which they are used.

*Water Supply (Water Fittings) Regulations 1999 – Schedule 2 Paragraph(s): -*

**G2.5**

The following factors should be considered when determining the suitability of materials and fittings which are, or will be, in contact with the water supplied:

a. internal and external temperatures to which they will be subjected;

b. the effect of internal and external corrosion;

c. compatibility of different materials;

d. the effect of ageing, fatigue, durability and other mechanical factors; and

e. permeability

**G15.2**

Avoidance of backflow should be achieved by good system design and the provision of suitable backflow prevention arrangements and devices, the type of which depends on the fluid category to which the wholesome water is discharged. A description of fluid risk categories is shown in Schedule 1 of the Regulations and some suggested examples relating to the fluid categories are shown in Schedule 1: Tables G6.1a to G6.1e.

**S15.2**

**INTERPRETATIONS OF BACKFLOW PREVENTION ARRANGEMENTS AS LISTED IN TABLE S6.1**

"Type AD – Air gap with injector" means a non-mechanical backflow prevention arrangement of water fittings with a horizontal injector and a physical air gap of 20 millimetres or twice the inlet diameter, whichever is the greater.

A product or installation which satisfies the requirements of this specification will be deemed to meet the requirements of the Water Supply (Water Fitting) Regulations 1999.
1. **SCOPE**

This Regulators Specification identifies the performance requirements that must be complied with to ensure that the requirements of Regulation 4.(1)(a)&(b) are satisfied.

This Regulators Specification applies to: -

Air Gaps AF

2. **REQUIREMENT**

Air Gaps AF must be tested as and comply with the requirements/criteria stipulated in pr EN 14622.

And the Regulators Specifications 1412.1, 2111.1, 2114.2, 6001.1, 2213.11.

3. **Regulatory Requirements**

The Water Supply (Water Fittings) Regulations 1999 are to prevent the: Waste; Misuse; Undue Consumption or Contamination of the water supplied by the undertaker.

Regulation 4, Requirements for water fittings, requires:

(1) that every water fitting shall be of an approved quality and standard and be suitable for the circumstances in which it is used;

(2) has four options for determination of whether a water fitting is of an appropriate quality or standard – ie.

(a) it bears a CE mark; or,

(b) it conforms to an appropriate (CEN) EN or European Technical Approval; or,

(c) it conforms to an appropriate BS, or some other national specification of an EEA State which provide an equivalent level of protection and performance; or,

(d) it conforms to a specification approved by the regulator.

Many fittings (and product) are thereby specified under 4 (d), Regulators’ Specifications, to ensure that are of an appropriate quality and are suitable for the circumstances and function for which they are used.

**Water Supply (Water Fittings) Regulations 1999 – Schedule 2 Paragraph(s):** -

G2.5

The following factors should be considered when determining the suitability of materials and fittings which are, or will be, in contact with the water supplied:

a. internal and external temperatures to which they will be subjected;

b. the effect of internal and external corrosion;

c. compatibility of different materials;

d. the effect of ageing, fatigue, durability and other mechanical factors; and

e. permeability

G15.2

Avoidance of backflow should be achieved by good system design and the provision of suitable backflow prevention arrangements and devices, the type of which depends on the fluid category to which the wholesome water is discharged. A description of fluid risk categories is shown in Schedule 1 of the Regulations and some suggested examples relating to the fluid categories are shown in Schedule 1: Tables G6.1a to G6.1e.

S15.2

**INTERPRETATIONS OF BACKFLOW PREVENTION ARRANGEMENTS AS LISTED IN TABLE S6.1**

*Type AF – Air gap with circular overflow* means a non-mechanical backflow prevention arrangement of water fittings with an air gap measured downwards from the lowest point of the discharge orifice, which discharges into the receptacle, to the critical level.

A product or installation which satisfies the requirements of this specification will be deemed to meet the requirements of the Water Supply (Water Fitting) Regulations 1999.
1. **SCOPE**

   This Regulators Specification identifies the performance requirements that must be complied with to ensure that the requirements of Regulation 4.(1)(a)&(b) are satisfied.

   This Regulators Specification applies to: -
   Air Gaps AG

2. **REQUIREMENT**

   Air Gaps AG must be tested as and comply with the requirements/criteria stipulated in pr EN 14623.

   And the Regulators Specifications 1412.1, 2111.1, 2114.2, 6001.1, 2213.11.

3. **Regulatory Requirements**

   The Water Supply (Water Fittings) Regulations 1999 are to prevent the: Waste; Misuse; Undue Consumption or Contamination of the water supplied by the undertaker.

   Regulation 4, Requirements for water fittings, requires:
   (1) that every water fitting shall be of an approved quality and standard and be suitable for the circumstances in which it is used;
   (2) has four options for determination of whether a water fitting is of an appropriate quality or standard – ie.
      (a) it bears a CE mark; or,
      (b) it conforms to an appropriate (CEN) EN or European Technical Approval; or,
      (c) it conforms to an appropriate BS, or some other national specification of an EEA State which provide an equivalent level of protection and performance; or,
      (d) it conforms to a specification approved by the regulator.

   Many fittings (and product) are thereby specified under 4 (d), Regulators’ Specifications, to ensure that are of an appropriate quality and are suitable for the circumstances and function for which they are used.

   **Water Supply (Water Fittings) Regulations 1999 – Schedule 2 Paragraph(s):** -

   G2.5
   The following factors should be considered when determining the suitability of materials and fittings which are, or will be, in contact with the water supplied:
   a. internal and external temperatures to which they will be subjected;
   b. the effect of internal and external corrosion;
   c. compatibility of different materials;
   d. the effect of ageing, fatigue, durability and other mechanical factors; and
   e. permeability

   G15.2
   Avoidance of backflow should be achieved by good system design and the provision of suitable backflow prevention arrangements and devices, the type of which depends on the fluid category to which the wholesome water is discharged. A description of fluid risk categories is shown in Schedule 1 of the Regulations and some suggested examples relating to the fluid categories are shown in Schedule 1: Tables G6.1a to G6.1e.

   S15.2
   **INTERPRETATIONS OF BACKFLOW PREVENTION ARRANGEMENTS AS LISTED IN TABLE S6.1**
   ‘Type AG – Air gap arrangement with minimum size circular overflow’ means a non-mechanical backflow prevention arrangement of water fittings with an air gap; together with an overflow, the size of which is determined by measure or a vacuum test.

   A product or installation which satisfies the requirements of this specification will be deemed to meet the requirements of the Water Supply (Water Fitting) Regulations 1999.
1. **SCOPE**

This Regulators Specification identifies the performance requirements that must be complied with to ensure that the requirements of Regulation 4.1(a)&(b) are satisfied.

This Regulators Specification applies to: - Sanitary Tapware 15mm (1/2”) and 22mm (3/4”).

2. **REQUIREMENT**

The Sanitary Tapware 15mm (1/2”) and 22mm (3/4”) must be tested as and comply with the requirements/criteria stipulated in pr EN 200 (2005 rev) clauses: -

Clauses 1.0, 7.3, 7.4, 7.5, 7.6, 7.7, 7.8, 8.4, 10.1, 11.1, 11.2, 11.3.

And the Regulators Specifications 2111.1, 2114.2, 6001.1, 1412.1, 2213.18 (AUK2) as required, 2213.19 (AUK3) as required, 1611.11, 1211.7 as required, 1211.21 as required, 1511.4 and 1511.5 as required.

If the automatic diverter is required to fulfil a backflow protection function then the automatic diverter must comply with the Regulators Specification 1450.6.

All tests might not be applicable to all sanitary tapware.

3. **Regulatory Requirements**

The Water Supply (Water Fittings) Regulations 1999 are to prevent the: Waste; Misuse; Undue Consumption or Contamination of the water supplied by the undertaker.

Regulation 4, Requirements for water fittings, requires:

(1) that every water fitting shall be of an approved quality and standard and be suitable for the circumstances in which it is used;

(2) has four options for determination of whether a water fitting is of an appropriate quality or standard – i.e.

(a) it bears a CE mark; or,

(b) it conforms to an appropriate (CEN) EN or European Technical Approval; or,

(c) it conforms to an appropriate BS, or some other national specification of an EEA State which provide an equivalent level of protection and performance; or,

(d) it conforms to a specification approved by the regulator.

Many fittings (and product) are thereby specified under 4 (d), Regulators’ Specifications, to ensure that are of an appropriate quality and are suitable for the circumstances and function for which they are used.

**Water Supply (Water Fittings) Regulations 1999 – Schedule 2 Paragraph(s):**

G2.5

The following factors should be considered when determining the suitability of materials and fittings which are, or will be, in contact with the water supplied:

a. internal and external temperatures to which they will be subjected;

b. the effect of internal and external corrosion;

c. compatibility of different materials;

d. the effect of ageing, fatigue, durability and other mechanical factors; and

e. permeability.

G2.9

Taps and combination assemblies used in water supply installations should be appropriate for the residual pressure available and the flow required at a particular appliance.

G2.10

Low resistance taps and combination tap assemblies suitable for minimum inlet pressures of 0.1 bar (0.01 MPa) should comply with BS 5412, or BS 1010 where appropriate, and high resistance taps and combination fittings suitable for minimum inlet pressures of 0.5 bar (0.05 MPa) with BS EN 200 and BS 6920.
G15.3
The type of backflow protection for a given situation is related to the fluid risk categories downstream of the backflow prevention device.

G15.4
Schedules of backflow prevention arrangements and backflow prevention devices, and the maximum permissible fluid risk category for which they are acceptable, are shown in Tables S15.2 and S15.3. Details of the arrangements and devices are shown in Diagrams G15.31.1 to G15.31.24.

A product or installation which satisfies the requirements of this specification will be deemed to meet the requirements of the Water Supply (Water Fitting) Regulations 1999.
1. **SCOPE**

This Regulators Specification identifies the performance requirements that must be complied with to ensure that the requirements of Regulation 4.(1)(a)&(b) are satisfied.

This Regulators Specification applies to: Building valves-Safety group-Temperature-Pressure

2. **REQUIREMENT**

Building valves must be tested as and comply with the requirements/criteria stipulated in:-

- BS EN 1487 clauses 9.4.2 & 9.4
- BS EN 1488 clauses 9.4.2 & 9.4
- BS EN 1489 clauses 6.2.2 & 5.2
- BS EN 1490 clauses 6.3, 5.2 and 6.2
- BS EN 1491 clauses 6.2 & 5.2

And the Regulators Specifications 1411.1, 1412.1, 1611.14, 2111.1, and 6001.1.

3. **Regulatory Requirements**

The Water Supply (Water Fittings) Regulations 1999 are to prevent the: Waste; Misuse; Undue Consumption or Contamination of the water supplied by the undertaker.

Regulation 4, Requirements for water fittings, requires:

1. that every water fitting shall be of an approved quality and standard and be suitable for the circumstances in which it is used;
2. has four options for determination of whether a water fitting is of an appropriate quality or standard – ie.
   a. it bears a CE mark; or,
   b. it conforms to an appropriate (CEN) EN or European Technical Approval; or,
   c. it conforms to an appropriate BS, or some other national specification of an EEA State which provide an equivalent level of protection and performance; or,
   d. it conforms to a specification approved by the regulator.

Many fittings (and product) are thereby specified under 4 (d), Regulators’ Specifications, to ensure that are of an appropriate quality and are suitable for the circumstances and function for which they are used.

**Water Supply (Water Fittings) Regulations 1999 – Schedule 2 Paragraph(s):**

**G2.5**

The following factors should be considered when determining the suitability of materials and fittings which are, or will be, in contact with the water supplied:

- a. internal and external temperatures to which they will be subjected;
- b. the effect of internal and external corrosion;
- c. compatibility of different materials;
- d. the effect of ageing, fatigue, durability and other mechanical factors; and
- e. permeability.

**G4.1**

Water fittings are to be watertight, suitable for the default pressures and temperatures likely to be encountered within the installation.

17. (1) Every unvented water heater, not being an instantaneous water heater with a capacity not greater than 15 litres, and every secondary coil contained in a primary system shall –
   a. be fitted with a temperature control device and either a temperature relief valve or a combined temperature and pressure relief valve; or
   b. be capable of accommodating expansion within the secondary hot water system.

(2) An expansion valve shall be fitted with provision to ensure that water is discharged in a correct manner in the event of a malfunction of the expansion vessel or system.
19. Discharges from temperature relief valves, combined temperature pressure and relief valves and expansion valves shall be made in a safe and conspicuous manner.

22. (1) Every expansion valve, temperature relief valve or combined temperature and pressure relief valve connected to any fitting or appliance shall close automatically after a discharge of water.
(2) Every expansion valve shall –
   (a) be fitted on the supply pipe close to the hot water vessel and without any intervening valves; and
   (b) only discharge water when subjected to a water pressure of not less than 0.5 bar (50 kPa) above the pressure to which the hot water vessel is, or is likely to be, subjected in normal operation.

23. (1) A temperature relief valve or combined temperature and pressure relief valve shall be provided on every unvented hot water storage vessel with a capacity greater than 15 litres.
(2) the valve shall –
   (a) be located directly on the vessel in an appropriate location, and have a sufficient discharge capacity, to ensure that the temperature of the stored water does not exceed 100°C; and
   (b) only discharge water at below its operating temperature when subjected to a pressure of not less than 0.5 bar (50 kPa) in excess of the greater of the following –
      (i) the maximum working pressure in the vessel in which it is fitted, or
      (ii) the operating pressure of the expansion valve.

(3) In this paragraph ‘unvented hot water storage vessel’ means a hot water storage vessel that does not have a vent pipe to the atmosphere.

A product or installation which satisfies the requirements of this specification will be deemed to meet the requirements of the Water Supply (Water Fitting) Regulations 1999.
1. **SCOPE**

   This Regulators Specification identifies the performance requirements that must be complied with to ensure that the requirements of Regulation 4.(1)(a)&(b) are satisfied.

   This Regulators Specification applies to:
   - Reduced Pressure Zone (RPZ) valve BA

2. **REQUIREMENT**

   The Reduced Pressure Zone (RPZ) valve BA must be tested as and comply with the requirements/criteria stipulated in BS EN 12729 clauses:

   And the Regulators Specifications 1412.1, 2111.1, 2114.2, 6001.1, 2213.11 and 1411.1 (DZR).

3. **Regulatory Requirements**

   The Water Supply (Water Fittings) Regulations 1999 are to prevent the: Waste; Misuse; Undue Consumption or Contamination of the water supplied by the undertaker.

   Regulation 4, Requirements for water fittings, requires:
   - (1) that every water fitting shall be of an approved quality and standard and be suitable for the circumstances in which it is used;
   - (2) has four options for determination of whether a water fitting is of an appropriate quality or standard – ie.
     - (a) it bears a CE mark; or,
     - (b) it conforms to an appropriate (CEN) EN or European Technical Approval; or,
     - (c) it conforms to an appropriate BS, or some other national specification of an EEA State which provide an equivalent level of protection and performance; or,
     - (d) it conforms to a specification approved by the regulator.

   Many fittings (and product) are thereby specified under 4 (d), Regulators’ Specifications, to ensure that are of an appropriate quality and are suitable for the circumstances and function for which they are used.

   **Water Supply (Water Fittings) Regulations 1999 – Schedule 2 Paragraph(s):**

   - **G2.5**
     - The following factors should be considered when determining the suitability of materials and fittings which are, or will be, in contact with the water supplied:
     - a. internal and external temperatures to which they will be subjected;
     - b. the effect of internal and external corrosion;
     - c. compatibility of different materials;
     - d. the effect of ageing, fatigue, durability and other mechanical factors; and
     - e. permeability

   - **G15.2**
     - Avoidance of backflow should be achieved by good system design and the provision of suitable backflow prevention arrangements and devices, the type of which depends on the fluid category to which the wholesome water is discharged. A description of fluid risk categories is shown in Schedule 1 of the Regulations and some suggested examples relating to the fluid categories are shown in Schedule 1: Tables G6.1a to G6.1e.

   - **G15.7**
     - Mechanical backflow protection devices which, depending on the type of device, may be suitable for protection against backpressure or backsiphonage, or both, should be installed so that:
       - a. they are readily accessible for inspection, operational maintenance and renewal; and
       - b. except for Types HA and HUK1, backflow prevention devices for protection against fluid categories 2 and 3, they should not be located outside premises; and
       - c. they are not buried in the ground; and
       - d. vented or verifiable devices, or devices with relief outlets, are not installed in chambers below ground level or where liable to flooding; and
e. line strainers are provided immediately upstream of all backflow prevention devices required for fluid category
4. Where strainers are provided, servicing valves are to be fitted upstream of the line strainer and
immediately downstream of the backflow prevention device; and
f. the lowest point of the relief outlet from any reduced pressure zone valve assembly or similar device should
terminate with a Type AA air gap located not less than 300mm above the ground or floor level.
Note: For information on the installation and maintenance of reduced pressure zone devices (RPZ valve
assemblies) see Installation and Guidance Note No. 9-03-02 published by the Water Regulations Advisory
Scheme.

S15.3
GENERAL INTERPRETATIONS OF BACKFLOW PREVENTION DEVICES AS LISTED IN TABLE S6.2
‘Type BA – Verifiable backflow preventer with reduced pressure zone’ means a verifiable mechanical
backflow prevention device consisting of an arrangement of water fittings with three pressure zones with
differential obturators and that will operate when potential backflow conditions obtain or there is a malfunction of
the valve.

A product or installation which satisfies the requirements of this specification will be deemed to meet the
requirements of the Water Supply (Water Fitting) Regulations 1999.
1. **SCOPE**

This Regulators Specification identifies the performance requirements that must be complied with to ensure that the requirements of Regulation 4.(1)(a)&(b) are satisfied.

This Regulators Specification applies to: -
Non-Verifiable Disconnector CA.

2. **REQUIREMENT**

The Non-Verifiable Disconnector CA. must be tested as and comply with the requirements/criteria stipulated in pr EN 14367 clauses: -
1.0, 8.1, 9.1, 9.2, 9.4.1, 9.4.2, 9.4.3, 9.4.4, 9.5.1, 9.5.2, 9.5.4, 9.6.3, 10.

And The Regulators specifications 1412.1, 2111.1, 2114.2, 6001.1, 1411.1 (DZR) and 2213.10.

3. **Regulatory Requirements**

The Water Supply (Water Fittings) Regulations 1999 are to prevent the: Waste; Misuse; Undue Consumption or Contamination of the water supplied by the undertaker.

Regulation 4, Requirements for water fittings, requires:
(1) that every water fitting shall be of an approved quality and standard and be suitable for the circumstances in which it is used;
(2) has four options for determination of whether a water fitting is of an appropriate quality or standard – ie.
(a) it bears a CE mark; or,
(b) it conforms to an appropriate (CEN) EN or European Technical Approval; or,
(c) it conforms to an appropriate BS, or some other national specification of an EEA State which provide an equivalent level of protection and performance; or,
(d) it conforms to a specification approved by the regulator.

Many fittings (and product) are thereby specified under 4 (d), Regulators’ Specifications, to ensure that are of an appropriate quality and are suitable for the circumstances and function for which they are used.

*Water Supply (Water Fittings) Regulations 1999 – Schedule 2 Paragraph(s): -*

**G2.5**
The following factors should be considered when determining the suitability of materials and fittings which are, or will be, in contact with the water supplied:

a. internal and external temperatures to which they will be subjected;
b. the effect of internal and external corrosion;
c. compatibility of different materials;
d. the effect of ageing, fatigue, durability and other mechanical factors; and
e. permeability

**G15.2**
Avoidance of backflow should be achieved by good system design and the provision of suitable backflow prevention arrangements and devices, the type of which depends on the fluid category to which the wholesome water is discharged. A description of fluid risk categories is shown in Schedule 1 of the Regulations and some suggested examples relating to the fluid categories are shown in Schedule 1: Tables G6.1a to G6.1e.

**G15.7**
Mechanical backflow protection devices which, depending on the type of device, may be suitable for protection against backpressure or backsiphonage, or both, should be installed so that:
a. they are readily accessible for inspection, operational maintenance and renewal; and
b. except for Types HA and HUK1, backflow prevention devices for protection against fluid categories 2 and 3, they should not be located outside premises; and
c. they are not buried in the ground; and
d. vented or verifiable devices, or devices with relief outlets, are not installed in chambers below ground level or where liable to flooding.
S15.3
GENERAL INTERPRETATIONS OF BACKFLOW PREVENTION DEVICES AS LISTED IN TABLE S6.2
‘Type CA – Non-verifiable disconnector with different pressure zones’ means a non-verifiable mechanical backflow prevention device which provides disconnection by venting the intermediate pressure zone of the device to the atmosphere when the difference of pressure between the intermediate zone and the upstream zone is not greater than 10% of the upstream pressure.

A product or installation which satisfies the requirements of this specification will be deemed to meet the requirements of the Water Supply (Water Fitting) Regulations 1999.
1. **SCOPE**

   This Regulators Specification identifies the performance requirements that must be complied with to ensure that
   the requirements of Regulation 4.(1)(a)&(b) are satisfied.

   This Regulators Specification applies to: -
   In-Line Anti Vacuum valve DA.

2. **REQUIREMENT**

   The In-Line Anti Vacuum valve DA must be tested as and comply with the requirements/criteria stipulated in pr
   EN 14451 clauses: -
   10.1, 10.2, 10.3.2, 10.4, 10.6, 10.8.1, 10.8.2, 10.8.3, 10.9, Annex A.

   And the Regulators Specifications 1412.1, 2111.1, 2114.2, 6001.1, 1411.1 (DZR).

3. **Regulatory Requirements**

   The Water Supply (Water Fittings) Regulations 1999 are to prevent the: Waste; Misuse; Undue Consumption or
   Contamination of the water supplied by the undertaker.

   Regulation 4, Requirements for water fittings, requires:
   (1) that every water fitting shall be of an approved quality and standard and be suitable for the circumstances in
       which it is used;
   (2) has four options for determination of whether a water fitting is of an appropriate quality or standard – ie.
       (a) it bears a CE mark; or,
       (b) it conforms to an appropriate (CEN) EN or European Technical Approval; or,
       (c) it conforms to an appropriate BS, or some other national specification of an EEA State which provide an
           equivalent level of protection and performance; or,
       (d) it conforms to a specification approved by the regulator.

   Many fittings (and product) are thereby specified under 4 (d), Regulators’ Specifications, to ensure that are of
   an appropriate quality and are suitable for the circumstances and function for which they are used.

   **Water Supply (Water Fittings) Regulations 1999 – Schedule 2 Paragraph(s): -**

   **G2.5**
   The following factors should be considered when determining the suitability of materials and fittings which are,
   or will be, in contact with the water supplied:
   a. internal and external temperatures to which they will be subjected;
   b. the effect of internal and external corrosion;
   c. compatibility of different materials;
   d. the effect of ageing, fatigue, durability and other mechanical factors; and
   e. permeability

   **G15.2**
   Avoidance of backflow should be achieved by good system design and the provision of suitable backflow
   prevention arrangements and devices, the type of which depends on the fluid category to which the
   wholesome water is discharged. A description of fluid risk categories is shown in Schedule 1 of the
   Regulations and some suggested examples relating to the fluid categories are shown in Schedule 1: Tables
   G6.1a to G6.1e.

   **G15.7**
   Mechanical backflow protection devices which, depending on the type of device, may be suitable for protection
   against backpressure or backsiphonage, or both, should be installed so that:
   a. they are readily accessible for inspection, operational maintenance and renewal; and
   b. except for Types HA and HUK1, backflow prevention devices for protection against fluid categories 2 and 3,
      they should not be located outside premises; and
   c. they are not buried in the ground; and
   d. vented or verifiable devices, or devices with relief outlets, are not installed in chambers below ground level or
      where liable to flooding.
S15.3
GENERAL INTERPRETATIONS OF BACKFLOW PREVENTION DEVICES AS LISTED IN TABLE S6.2

‘Type DA – Anti-vacuum valve (or vacuum breaker)’ means a mechanical backflow prevention device with an air inlet which is closed when water within the device is at or above atmospheric pressure but which opens to admit air if a vacuum occurs at the inlet to the device.

A product or installation which satisfies the requirements of this specification will be deemed to meet the requirements of the Water Supply (Water Fitting) Regulations 1999.
1. **SCOPE**

   This Regulators Specification identifies the performance requirements that must be complied with to ensure that the requirements of Regulation 4.(1)(a)&(b) are satisfied.

   This Regulators Specification applies to: - Pipe Interrupter with Moving Element DB.

2. **REQUIREMENT**

   The Pipe Interrupter with Moving Element DB must be tested as and comply with the requirements/criteria stipulated in pr EN 14452 clauses: -

   10.1.1, 10.2, 10.3, 10.4, 10.6, 10.8, 10.10, Annex A.

   And Regulators Specifications 1412.1, 2111.1, 2114.2, 6001.1, 1411.1 (DZR).

3. **Regulatory Requirements**

   The Water Supply (Water Fittings) Regulations 1999 are to prevent the: Waste; Misuse; Undue Consumption or Contamination of the water supplied by the undertaker.

   Regulation 4, Requirements for water fittings, requires:

   (1) that every water fitting shall be of an approved quality and standard and be suitable for the circumstances in which it is used;
   (2) has four options for determination of whether a water fitting is of an appropriate quality or standard – ie.
   (a) it bears a CE mark; or,
   (b) it conforms to an appropriate (CEN) EN or European Technical Approval; or,
   (c) it conforms to an appropriate BS, or some other national specification of an EEA State which provide an equivalent level of protection and performance; or,
   (d) it conforms to a specification approved by the regulator.

   Many fittings (and product) are thereby specified under 4 (d), Regulators’ Specifications, to ensure that are of an appropriate quality and are suitable for the circumstances and function for which they are used.

   **Water Supply (Water Fittings) Regulations 1999 – Schedule 2 Paragraph(s):** -

   **G2.5**
   
   The following factors should be considered when determining the suitability of materials and fittings which are, or will be, in contact with the water supplied:

   a. internal and external temperatures to which they will be subjected;
   b. the effect of internal and external corrosion;
   c. compatibility of different materials;
   d. the effect of ageing, fatigue, durability and other mechanical factors; and
   e. permeability

   **G15.2**

   Avoidance of backflow should be achieved by good system design and the provision of suitable backflow prevention arrangements and devices, the type of which depends on the fluid category to which the wholesome water is discharged. A description of fluid risk categories is shown in Schedule 1 of the Regulations and some suggested examples relating to the fluid categories are shown in Schedule 1: Tables G6.1a to G6.1e.

   **G15.7**

   Mechanical backflow protection devices which, depending on the type of device, may be suitable for protection against backpressure or backsiphonage, or both, should be installed so that:

   a. they are readily accessible for inspection, operational maintenance and renewal; and
   b. except for Types HA and HUK1, backflow prevention devices for protection against fluid categories 2 and 3, they should not be located outside premises; and
   c. they are not buried in the ground; and
   d. vented or verifiable devices, or devices with relief outlets, are not installed in chambers below ground level or where liable to flooding.
S15.3
GENERAL INTERPRETATIONS OF BACKFLOW PREVENTION DEVICES AS LISTED IN TABLE S6.2
'Type DB – Pipe interrupter with atmospheric vent and moving element' means a mechanical backflow prevention device with an air inlet closed by a moving element when the device is in normal use but which opens and admits air if the water pressure upstream of the device falls to atmospheric pressure, the device being installed so that the flow of water is in a vertical, downward direction.

A product or installation which satisfies the requirements of this specification will be deemed to meet the requirements of the Water Supply (Water Fitting) Regulations 1999.
1. **SCOPE**

This Regulators Specification identifies the performance requirements that must be complied with to ensure that the requirements of Regulation 4.(1)(a)&(b) are satisfied.

This Regulators Specification applies to: - Pipe Interrupter with Permanent Atmospheric vent DC.

2. **REQUIREMENT**

The Pipe Interrupter with Permanent Atmospheric vent DC must be tested as and comply with the requirements/criteria stipulated in pr EN 14453 clauses: - 10.1, 10.2, 10.3, 10.4, 10.5, Annex A.

And The Regulators Specifications 1412.1, 2111.1, 2114.2, 6001.1, 1511.6 and 1411.1 (DZR).

3. **Regulatory Requirements**

The Water Supply (Water Fittings) Regulations 1999 are to prevent the: Waste; Misuse; Undue Consumption or Contamination of the water supplied by the undertaker.

Regulation 4, Requirements for water fittings, requires:
(1) that every water fitting shall be of an approved quality and standard and be suitable for the circumstances in which it is used;
(2) has four options for determination of whether a water fitting is of an appropriate quality or standard – ie. (a) it bears a CE mark; or,
(b) it conforms to an appropriate (CEN) EN or European Technical Approval; or,
(c) it conforms to an appropriate BS, or some other national specification of an EEA State which provide an equivalent level of protection and performance; or,
(d) it conforms to a specification approved by the regulator.

Many fittings (and product) are thereby specified under 4 (d), Regulators’ Specifications, to ensure that are of an appropriate quality and are suitable for the circumstances and function for which they are used.

**Water Supply (Water Fittings) Regulations 1999 – Schedule 2 Paragraph(s):** -

G2.5
The following factors should be considered when determining the suitability of materials and fittings which are, or will be, in contact with the water supplied:

a. internal and external temperatures to which they will be subjected;
b. the effect of internal and external corrosion; 
c. compatibility of different materials; 
d. the effect of ageing, fatigue, durability and other mechanical factors; and 
e. permeability

G15.2
Avoidance of backflow should be achieved by good system design and the provision of suitable backflow prevention arrangements and devices, the type of which depends on the fluid category to which the wholesome water is discharged. A description of fluid risk categories is shown in Schedule 1 of the Regulations and some suggested examples relating to the fluid categories are shown in Schedule 1: Tables G6.1a to G6.1e.

S15.2
**INTERPRETATIONS OF BACKFLOW PREVENTION ARRANGEMENTS AS LISTED IN TABLE S6.1**

*Type DC – Pipe interrupter with permanent atmospheric vent* means a non-mechanical backflow prevention device with a permanent unrestricted air inlet, the device being installed so that the flow of water is in a vertical downward direction.

A product or installation which satisfies the requirements of this specification will be deemed to meet the requirements of the Water Supply (Water Fitting) Regulations 1999.
1. **SCOPE**

This Regulators Specification identifies the performance requirements that must be complied with to ensure that the requirements of Regulation 4.(1)(a)&(b) are satisfied.

This Regulators Specification applies to: -
Check valves EA, EB, EC, ED including check valve cartridges.

2. **REQUIREMENT**

The Check valves EA, EB, EC, ED including check valve cartridges must be tested as and comply with the requirements/criteria stipulated in BS EN 13959 clauses: -
8.4.1, 10.1, 10.2, 11.1, 11.3, 11.4, 11.5, 11.6, 11.7, 11.9 and Annex A.

And the Regulators Specifications 1412.1, 2111.1, 2114.2, 6001.1, 2111.2 (if applicable) and 1411.1 (DZR) and 2213.5 (if applicable).

3. **Regulatory Requirements**

The Water Supply (Water Fittings) Regulations 1999 are to prevent the: Waste; Misuse; Undue Consumption or Contamination of the water supplied by the undertaker.

Regulation 4, Requirements for water fittings, requires:
(1) that every water fitting shall be of an approved quality and standard and be suitable for the circumstances in which it is used;
(2) has four options for determination of whether a water fitting is of an appropriate quality or standard – ie.
(a) it bears a CE mark; or,
(b) it conforms to an appropriate (CEN) EN or European Technical Approval; or,
(c) it conforms to an appropriate BS, or some other national specification of an EEA State which provide an equivalent level of protection and performance; or,
(d) it conforms to a specification approved by the regulator.

Many fittings (and product) are thereby specified under 4 (d), Regulators’ Specifications, to ensure that are of an appropriate quality and are suitable for the circumstances and function for which they are used.

*Water Supply (Water Fittings) Regulations 1999 – Schedule 2 Paragraph(s): -*

**G2.5**
The following factors should be considered when determining the suitability of materials and fittings which are, or will be, in contact with the water supplied:

- a. internal and external temperatures to which they will be subjected;
- b. the effect of internal and external corrosion;
- c. compatibility of different materials;
- d. the effect of ageing, fatigue, durability and other mechanical factors; and
- e. permeability

**G15.2**
Avoidance of backflow should be achieved by good system design and the provision of suitable backflow prevention arrangements and devices, the type of which depends on the fluid category to which the wholesome water is discharged. A description of fluid risk categories is shown in Schedule 1 of the Regulations and some suggested examples relating to the fluid categories are shown in Schedule 1: Tables G6.1a to G6.1e.

**G15.7**
Mechanical backflow protection devices which, depending on the type of device, may be suitable for protection against backpressure or backsiphonage, or both, should be installed so that:
- a. they are readily accessible for inspection, operational maintenance and renewal; and
- b. except for Types HA and HUK1, backflow prevention devices for protection against fluid categories 2 and 3, they should not be located outside premises; and
- c. they are not buried in the ground.

**S15.3**
GENERAL INTERPRETATIONS OF BACKFLOW PREVENTION DEVICES AS LISTED IN TABLE S6.2
‘Type EA – Verifiable single check valve’ means a verifiable mechanical backflow prevention device which will permit water to flow from upstream to downstream but not in the reverse direction.

‘Type EB – Non-verifiable single check valve’ means a non-verifiable mechanical backflow prevention device which will permit water to flow from upstream to downstream but not in the reverse direction.

‘Type EC – Verifiable double check valve’ means a verifiable mechanical backflow prevention device consisting of two verifiable single check valves in series, which will permit water to flow from upstream to downstream but not in the reverse direction.

‘Type ED – Non-verifiable double check valve’ means a non-verifiable mechanical backflow prevention device consisting of two single check valves in series, which will permit water to flow from upstream to downstream but not in the reverse direction.

A product or installation which satisfies the requirements of this specification will be deemed to meet the requirements of the Water Supply (Water Fitting) Regulations 1999.
1. **SCOPE**

This Regulators Specification identifies the performance requirements that must be complied with to ensure that the requirements of Regulation 4.(1)(a)&(b) are satisfied.

This Regulators Specification applies to: -
Hose Union Backflow preventer HA.

2. **REQUIREMENT**

The Hose Union Backflow preventer HA must be tested as and comply with the requirements/criteria stipulated in pr EN 14454 clauses: -
8.3, 10.1.1, 10.2, 10.4, 10.6, 10.7, 10.9, 10.10, Annex A.

And Regulators Specifications 1412.1, 2111.1, 2114.2, 6001.1, 1411.1 (DZR).

3. **Regulatory Requirements**

The Water Supply (Water Fittings) Regulations 1999 are to prevent the: Waste; Misuse; Undue Consumption or Contamination of the water supplied by the undertaker.

Regulation 4, Requirements for water fittings, requires:
(1) that every water fitting shall be of an approved quality and standard and be suitable for the circumstances in which it is used;
(2) has four options for determination of whether a water fitting is of an appropriate quality or standard – ie.
   (a) it bears a CE mark; or,
   (b) it conforms to an appropriate (CEN) EN or European Technical Approval; or,
   (c) it conforms to an appropriate BS, or some other national specification of an EEA State which provide an equivalent level of protection and performance; or,
   (d) it conforms to a specification approved by the regulator.

Many fittings (and product) are thereby specified under 4 (d), Regulators’ Specifications, to ensure that are of an appropriate quality and are suitable for the circumstances and function for which they are used.

**Water Supply (Water Fittings) Regulations 1999 – Schedule 2 Paragraph(s):** -

G2.5
The following factors should be considered when determining the suitability of materials and fittings which are, or will be, in contact with the water supplied:

a. internal and external temperatures to which they will be subjected;
   b. the effect of internal and external corrosion;
   c. compatibility of different materials;
   d. the effect of ageing, fatigue, durability and other mechanical factors; and
   e. permeability

G15.2
Avoidance of backflow should be achieved by good system design and the provision of suitable backflow prevention arrangements and devices, the type of which depends on the fluid category to which the wholesome water is discharged. A description of fluid risk categories is shown in Schedule 1 of the Regulations and some suggested examples relating to the fluid categories are shown in Schedule 1: Tables G6.1a to G6.1e.

G15.7
Mechanical backflow protection devices which, depending on the type of device, may be suitable for protection against backpressure or backsiphonage, or both, should be installed so that:
   a. they are readily accessible for inspection, operational maintenance and renewal; and
   b. except for Types HA and HUK1, backflow prevention devices for protection against fluid categories 2 and 3, they should not be located outside premises; and
   c. they are not buried in the ground.
S15.3
GENERAL INTERPRETATIONS OF BACKFLOW PREVENTION DEVICES AS LISTED IN TABLE S6.2

‘Type HA – Hose union backflow preventer’ means a mechanical backflow prevention device for fitting to the outlet of a hose union tap and consisting of a single check valve with air inlets that open if the flow of water ceases.

A product or installation which satisfies the requirements of this specification will be deemed to meet the requirements of the Water Supply (Water Fitting) Regulations 1999.
1. **SCOPE**

   This Regulators Specification identifies the performance requirements that must be complied with to ensure that the requirements of Regulation 4.(1)(a)&(b) are satisfied

   This Regulators Specification applies to: -
   Automatic Diverter HC (affording Backflow prevention fluid 3).

2. **REQUIREMENT**

   The Automatic Diverter HC (affording Backflow prevention fluid 3) must be tested and comply with the requirements/criteria stipulated in pr EN 14506 clauses: -
   1.0, 10.1, 10.2 & Annex A, 10.4, 10.5 & 10.6.

   And the Regulators Specifications 2111.1, 2114.2, 1412.1, 6001.1 and 0200.0 as applicable.

3. **Regulatory Requirements**

   The Water Supply (Water Fittings) Regulations 1999 are to prevent the: Waste; Misuse; Undue Consumption or Contamination of the water supplied by the undertaker.

   Regulation 4, Requirements for water fittings, requires:
   (1) that every water fitting shall be of an approved quality and standard and be suitable for the circumstances in which it is used;
   (2) has four options for determination of whether a water fitting is of an appropriate quality or standard – ie.
      (a) it bears a CE mark; or,
      (b) it conforms to an appropriate (CEN) EN or European Technical Approval; or,
      (c) it conforms to an appropriate BS, or some other national specification of an EEA State which provide an equivalent level of protection and performance; or,
      (d) it conforms to a specification approved by the regulator.

   Many fittings (and product) are thereby specified under 4 (d), Regulators’ Specifications, to ensure that are of an appropriate quality and are suitable for the circumstances and function for which they are used.

   **Water Supply (Water Fittings) Regulations 1999 – Schedule 2 Paragraph(s): -**

   **G2.5**
   The following factors should be considered when determining the suitability of materials and fittings which are, or will be, in contact with the water supplied:
   a. internal and external temperatures to which they will be subjected;
   b. the effect of internal and external corrosion;
   c. compatibility of different materials;
   d. the effect of ageing, fatigue, durability and other mechanical factors; and
   e. permeability
   
   **G15.2**
   Avoidance of backflow should be achieved by good system design and the provision of suitable backflow prevention arrangements and devices, the type of which depends on the fluid category to which the wholesome water is discharged. A description of fluid risk categories is shown in Schedule 1 of the Regulations and some suggested examples relating to the fluid categories are shown in Schedule 1: Tables G6.1a to G6.1e.

   **G15.7**
   Mechanical backflow protection devices which, depending on the type of device, may be suitable for protection against backpressure or backsiphonage, or both, should be installed so that:
   a. they are readily accessible for inspection, operational maintenance and renewal; and
   b. except for Types HA and HUK1, backflow prevention devices for protection against fluid categories 2 and 3, they should not be located outside premises; and
   c. they are not buried in the ground; and
   d. vented or verifiable devices, or devices with relief outlets, are not installed in chambers below ground level or where liable to flooding.
S15.3
GENERAL INTERPRETATIONS OF BACKFLOW PREVENTION DEVICES AS LISTED IN TABLE S6.2

‘Type HC – Diverter with automatic return’ means a mechanical backflow prevention device used in bath/shower combination tap assemblies which automatically returns the bath outlet open to atmosphere if a vacuum occurs at the inlet to the devise.

A product or installation which satisfies the requirements of this specification will be deemed to meet the requirements of the Water Supply (Water Fitting) Regulations 1999.
1. **SCOPE**

   This Regulators Specification identifies the performance requirements that must be complied with to ensure that the requirements of Regulation 4.(1)(a)&(b) are satisfied

   This Regulators Specification applies to: -

   Pressurised Air Inlet valves LA.

2. **REQUIREMENT**

   The Pressurised Air Inlet valves LA must be tested as and comply with the requirements/criteria stipulated in pr EN 14455 clauses: -

   3.1, 3.2, 8.3, 10.4, 10.5, 10.7, 10.8, 10.9, 10.10, Annex A.

   And Regulators Specifications 1412.1, 2111.1, 2114.2, 6001.1, 1411.1 (DZR).

3. **Regulatory Requirements**

   The Water Supply (Water Fittings) Regulations 1999 are to prevent the: Waste; Misuse; Undue Consumption or Contamination of the water supplied by the undertaker.

   Regulation 4, Requirements for water fittings, requires:
   (1) that every water fitting shall be of an approved quality and standard and be suitable for the circumstances in which it is used;
   (2) has four options for determination of whether a water fitting is of an appropriate quality or standard – ie.
   (a) it bears a CE mark; or,
   (b) it conforms to an appropriate (CEN) EN or European Technical Approval; or,
   (c) it conforms to an appropriate BS, or some other national specification of an EEA State which provide an equivalent level of protection and performance; or,
   (d) it conforms to a specification approved by the regulator.

   Many fittings (and product) are thereby specified under 4 (d), Regulators’ Specifications, to ensure that are of an appropriate quality and are suitable for the circumstances and function for which they are used.

   **Water Supply (Water Fittings) Regulations 1999 – Schedule 2 Paragraph(s): -**

   **G2.5**

   The following factors should be considered when determining the suitability of materials and fittings which are, or will be, in contact with the water supplied:

   a. internal and external temperatures to which they will be subjected;
   b. the effect of internal and external corrosion;
   c. compatibility of different materials;
   d. the effect of ageing, fatigue, durability and other mechanical factors; and
   e. permeability

   **G15.2**

   Avoidance of backflow should be achieved by good system design and the provision of suitable backflow prevention arrangements and devices, the type of which depends on the fluid category to which the wholesome water is discharged. A description of fluid risk categories is shown in Schedule 1 of the Regulations and some suggested examples relating to the fluid categories are shown in Schedule 1: Tables G6.1a to G6.1e.

   **G15.7**

   Mechanical backflow protection devices which, depending on the type of device, may be suitable for protection against backpressure or backsiphonage, or both, should be installed so that:
   a. they are readily accessible for inspection, operational maintenance and renewal; and
   b. except for Types HA and HUK1, backflow prevention devices for protection against fluid categories 2 and 3, they should not be located outside premises; and
   c. they are not buried in the ground; and
   d. vented or verifiable devices, or devices with relief outlets, are not installed in chambers below ground level or where liable to flooding.
S15.3
GENERAL INTERPRETATIONS OF BACKFLOW PREVENTION DEVICES AS LISTED IN TABLE S6.2
'Type LA – Pressurised air inlet valve' means an anti-vacuum valve or vacuum breaker, similar to Type DA but suitable for conditions where the water pressure at the outlet of the device under normal conditions of use is greater than atmospheric.

A product or installation which satisfies the requirements of this specification will be deemed to meet the requirements of the Water Supply (Water Fitting) Regulations 1999.
1. **SCOPE**

This Regulators Specification identifies the performance requirements that must be complied with to ensure that the requirements of Regulation 4.(1)(a)&(b) are satisfied.

This Regulators Specification applies to:

- GRP cisterns of one piece and sectional.

2. **REQUIREMENT**

GRP cisterns must be tested as and comply with the requirements/criteria stipulated in:

- TCS 1328.0 includes reference to BS EN 13280 clauses: -
  - 7.2.2, 7.3.3, 7.4.1, 9.4, Annex C, Annex F, Annex G (if applicable), Annex J. For hot water applications only Annex H.
  - and Regulators Specifications 1412.1, 2111.1, 2114.2 and 6001.1.

3. **Regulatory Requirements**

The Water Supply (Water Fittings) Regulations 1999 are to prevent the: Waste; Misuse; Undue Consumption or Contamination of the water supplied by the undertaker.

Regulation 4, Requirements for water fittings, requires:

(1) that every water fitting shall be of an approved quality and standard and be suitable for the circumstances in which it is used;

(2) has four options for determination of whether a water fitting is of an appropriate quality or standard – ie.

(a) it bears a CE mark; or,

(b) it conforms to an appropriate (CEN) EN or European Technical Approval; or,

(c) it conforms to an appropriate BS, or some other national specification of an EEA State which provide an equivalent level of protection and performance; or,

(d) it conforms to a specification approved by the regulator.

Many fittings (and product) are thereby specified under 4 (d), Regulators’ Specifications, to ensure that are of an appropriate quality and are suitable for the circumstances and function for which they are used.

**Water Supply (Water Fittings) Regulations 1999 – Schedule 2 Paragraph(s):** -

**G2.5**

The following factors should be considered when determining the suitability of materials and fittings which are, or will be, in contact with the water supplied:

a. internal and external temperatures to which they will be subjected;

b. the effect of internal and external corrosion;

c. compatibility of different materials;

d. the effect of ageing, fatigue, durability and other mechanical factors; and

e. permeability.

**16.**

(1) Every pipe supplying water connected to a storage cistern shall be fitted with an effective adjustable valve capable of shutting off the inflow of water at a suitable level below the overflowing level of the cistern.

(2) Every inlet to a storage cistern, combined feed and expansion cistern, WC flushing cistern or urinal flushing cistern shall be fitted with a servicing value on the inlet pipe adjacent to the cistern.

(3) Every storage cistern, except one supplying water to the primary circuit of a heating system, shall be fitted with a servicing valve on the outlet pipe.

(4) Every storage cistern shall be fitted with –

(a) an overflow pipe, with a suitable means of warning of an impending overflow, which excludes insects;

(b) a cover positioned so as to exclude light and insects; and

(c) thermal insulation to minimise freezing or undue warming.

(5) Every storage cistern shall be so installed as to minimise the risk of contamination of stored water.

The cistern shall be of an appropriate size, and the pipe connections to the cistern shall be so positioned, as to allow free circulation and to prevent areas of stagnant water from developing.

A product or installation which satisfies the requirements of this specification will be deemed to meet the requirements of the Water Supply (Water Fitting) Regulations 1999.