The general principles of protection against water backflows are defined in Standard NF EN 1717 “Protection against pollution of potable water in water installations and general requirements of devices to prevent pollution by backflow”.

This standard defines a risk assessment methodology taking account of:

- types of situations that could cause water backflow (overpressure in the equipment or low pressure in the network);
- the type of fluid that might come into contact with potable water;
- an assessment of the application taking account of some other parameters that might lead to an aggravation or attenuation of the risk.

Therefore, it is essential that each appliance or equipment connected to the network should be fitted with a backflow prevention device satisfying the rules published in Standard NF EN 1717.

The nature of these appliances or this equipment may vary considerably and their use may lead to very different risks. For example in homes and in tertiary industry, there are washing machines and dishwashers, high pressure cleaners, rainwater usage systems, chilled water fountains or drink dispensers, dilution systems, some sanitary equipment (spray-equipped toilet lid). Uses in industry are even broader.

I. EQUIPMENT SANITARY CONFORMITY NOTICE (ACSE)
CSTB has defined a service to verify that no equipment connected to the network can introduce any risk of pollution. The Equipment Sanitary Conformity Notice is a document stating that the equipment satisfies the requirements of regulations related to protection of the potable water network.

II. CONDITIONS OF ISSUE OF THE ACSE
A manufacturer who would like to obtain an ACSE for one of his products must provide CSTB with a file including:

- the description of the equipment (operation, reference, type, etc.);
- schematic diagrams and hydraulic diagram of the equipment, showing the position of the protection device and the connection point to the potable water network;
- description of the protection device (reference, type, certification mark, etc.);
- diagrams/design drawings for the part concerning the protection device;
- appropriate technical documentation to demonstrate that the equipment complies with essential requirements.
This documentation must be written at least in French and must comprise at least:

- an overall diagrammatic description of the equipment;
- installation, servicing and maintenance rules for the equipment to assure that the protection device will be reliable in the long term;
- the reference to the Equipment Sanitary Conformity Notice (ACSE).

CSTB will investigate the ACSE request starting from these documents:

- Analysis of the equipment:
  - Assessment of the risk of pollution;
  - Determination of the most appropriate protection devices;
- Verification of the protection device built into the equipment:
  - Conformity of the device in accordance with the product standards applicable for uncertified devices;
- Proof of conformity with NF 045 or equivalent certification rules;
- Analysis of the technical documentation provided by the requester. Special attention will be paid to installation, maintenance and servicing rules including for the protection device.

An examination of the file may require that tests should be performed according to product standards to check conformity of protection devices.

**III. VALIDITY OF THE ACSE**

The ACSE validity duration is limited to three years starting from the date of issue. Some requirements and checks listed below also have to be respected as far as the ACSE validity is concerned.

**3.1 Equipment marking**

All assessed equipment must be legibly, permanently and indelibly marked, and must be accessible to facilitate verification during on-site checks. When marking is made on a label, the label must resist conditions related to the use and environment of the equipment.

**Marking shall state at least:**

- The equipment manufacturer’s name or logo
- The “ACSE” pictogram
- The family and type of the built-in protection device (at the initiative of the manufacturer)
- The fluid category (at the initiative of the manufacturer).

**3.2 Test methods**

CSTB can perform whatever tests it considers necessary at any time (in supply networks, at the holder’s or in equipment sales outlets or show rooms). If a non-conformity is observed, CSTB informs the holder and the latter gives details of the corrective measures taken to make equipment conforming and approaches that are taken to recall nonconforming products.

Otherwise, the equipment is withdrawn from the ACSE list.

**IV. INFORMATION**

In addition to equipment marking that enables the user and the specifier to make sure that the equipment can be connected to the network without any risk, CSTB puts the list of equipment for which it has issued an ACSE on line, on its internet site.

This list is updated at regular intervals.

**V. A PROCEDURE THAT BENEFITS THE ENTIRE INDUSTRY**

**5.1 Manufacturers**

The ACSE logo affixed on equipment quickly informs users and bodies responsible for inspection and verification of installations that this equipment can be directly and safely connected to the potable water network without having to provide any evidence. Since the analysis is based on European Standard EN 1717, this option of direct connection should be possible in most European countries.

Recognition of this procedure by health authorities and water suppliers should help to promote equipment bearing this label. Installers will also be assured that the products that they install satisfy health requirements.

**5.2 Specifiers, installers and users**

The ACSE provides a means of knowing whether or not an appliance or equipment satisfies applicable health requirements, before its installation.

During an inspection or a diagnostic, the owner can visually demonstrate that the connected appliance satisfies the applicable regulations. Installers and specifiers can inform their customer right from the beginning of a project, about what types of appliances could be connected without other particular requirements.

For further information:

> A complete description of the procedure is available on CSTB’s new internet site dedicated to evaluation evaluation.cstb.fr in the «Discover our services» section.