EN 298:2022 Transition – CE/UKCA

Guidance for Product Manufacturers

1. What is the background to this issue?

The European standard EN 298:2012 was superseded in November 2022 and replaced with EN 298:2022. As a result, the "state of the art" can be considered to have changed in the context of automatic burner control systems.

2. What technical changes have been made?

Many changes have been made to EN 298 in the 2022 version, and BSI would always advise people to review the new standard for themselves to be sure they do not miss any changes that could have significance for their products. In practice, however, the most significant changes to the standard are:

- Alignment with EN 13611:2019 and addition of the high-temperature operation (HTO). Relevant changes have been made throughout the standard to reference HTO regarding performance tests and instructions
- 6.6.1 Design and construction requirements. Additional Software Clause EN 60730-1:2016 Annex H.11.12.4 Remotely actuated control Functions
- 6.6.3 Class B. The clause was previously N/A but has now been made a requirement for a Reset function
- 6.6.4 Class C. Software now evaluated to EN 60730-1:2016 Annex H.11.12
- 7.8 Data exchange. New requirement added
- 9.3 Voltage dips and interruptions. Tests at 30% decrease for 1.5, 25 & 50 cycles have been added
- 9.5 Surge immunity tests. Tests of the power supply cable at 2kV LN-LN added (previously N/A). Plus, Test of control cables/balanced circuits LN-GND increased to 1.0 & 2.0 kV (Previously 0.5 & 1kV)
- 9.8 Immunity to radiated disturbances induced by radio frequency fields. Bandwidth 2.0–2.7 GHz added. 6 x ISM, GSM & DECT spot frequencies changed/added
- 9.11 Harmonics and interharmonics including mains signalling at a. c. power port, low frequency immunity tests. Clause added

3. What is the "state of the art"?

Both the UK and EU Gas Appliances Regulations refer to "state of the art" in Annex I:

*"The essential requirements are to be interpreted and applied in such a way as to take into account the **state of the art** and current practice at the time of **design** and **manufacture** as well as technical and economic considerations which are consistent with a high degree of energy efficiency and of health and safety protection."*

The "state of the art" shall be considered at the time of "design" and at the time of "manufacture". Therefore, manufacturers need to respond to changes in the "state of the art" during the life of the product, not simply take this into account at the initial design stage.

The compliance with the latest European standard will generally provide for compliance with the "state of the art". This BSI blog The Gas Appliances Regulation & "State of the art" provides a detailed explanation on the meaning of "state of the art".

4. Do I have to upgrade my burner controls to EN 298:2022?

The short answer is yes.

The introduction of EN 298:2022 has updated the definition of the term "state of the art". The European Commission's Blue Guide supports the view in 4.1.2.4 that "*The concept of essential requirements is based on the assumption that the harmonised standards reflect generally acknowledgeable state of the art*". It further clarifies the revision of harmonised standard in 4.1.2.5 that *"manufacturers must keep themselves appraised of changes in the state of the art, assess the extent of the changes to the superseded version of the standard and, if necessary, take appropriate action."*

The legal requirements for gas appliances and controls are that products placed on the market must be "safe" and compliant with the essential requirements detailed in the Gas Appliances Regulation.

Compliance with EN 298:2022 would be a good way of showing compliance with the legal requirements. That said, the compliance with any European Standard is always voluntary and we cannot rule out the possibility that there may be other standards or documents that could demonstrate this equally well – in such cases the manufacturers need to consider the "state of the art" that is referenced in EN 298:2022.

5. When must I upgrade my burner controls to EN 298:2022?

The manufacturers should complete the review of EN 298:2022 and develop an action plan to ensure your products continue to comply with the "state of the art". We expect the action plan to be completed within the next six months.

An application should be lodged with BSI to update the certification to verify the compliance to the new requirements in EN 298:2022. We believe it is reasonable for all manufacturers to complete the upgrade to the new standard before 30 November 2024, which is two years after the publication of BS EN 298:2022. After 30 November 2024, our auditors will raise a non-conformity when a burner control is identified to have been certified to the earlier version of EN 298.

6. So my "old" controls to EN 298:2012 must be retested?

The Gas Appliances Regulation does not include any requirements for repeat testing of controls because of this change of standard. The control manufacturer is free to review the design themselves and provide evidence that the burner controls continue to comply with EN 298: 2022. Manufacturers may choose to have this review performed independently by a Notified Body such as BSI, and our experience with both versions of the standard may save significant time in the process.

If, because of the review, any retest was required, we would limit the test to the clauses with new requirements only applicable to your burner controls.

If the manufacturer decided that they needed to modify the control to meet the new requirements, then the modified control would have to be submitted for testing to verify the modifications.

7. What is BSI's policy on handling the transition?

BSI has created a policy document describing how this will be managed with BSI's clients. BSI is looking for all clients to show "due diligence" and show that they have a plan to handle this transition within a reasonable time. Examples of actions that may be acceptable to us would be:

- Producing evidence that an existing control already complies with the additional requirements of EN 298:2022
- Making a commitment to replace or redesign an existing control within an agreed (and reasonable) timeframe
- BSI will apply this policy to its clients that manufacture control systems and those that manufacture appliances (who will need to ensure their suppliers are responding to this change as well)

Q8. What if I have any further questions?

In the first instance, please contact Shaun Li – Certification Manager of BSI gas team at shaun.li@bsigroup.com