EN 298: 2012 Transition
– Guidance for Product Manufacturers

Q1. What is the background to this issue?
The harmonised European standard EN 298: 2003 has been reviewed and updated, and a new version has been published by CEN (EN 298: 2012).

As is custom and practice with revisions to standards, the two versions will “coexist” for a few years and then the earlier version will be withdrawn in May 2015.

Q2. What are the major changes?
The most significant change on this occasion is, unusually, a change in the scope of the standard – the standard previously covered electronic control systems for gas burners only, but has now been extended to cover control systems for liquid fuels as well (i.e., those used on oil burners). As a consequence of this, the title of the standard has changed to BS EN 298: 2012 (Automatic burner control systems for burners and appliances burning gaseous or liquid fuels) and the following standards have been superseded and will be withdrawn in May 2015:

- BS EN 298: 2003 (Automatic gas burner control systems for gas appliances)
- BS EN 230: 2005 (Automatic burner control systems for oil burners)

Q3. What technical changes have been made?
Many changes have been made to EN 298 in the 2012 version, and BSI would always advise people to review the new standard for themselves in order 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:

- The standard has been extensively revised to make reference to BS EN 13611: 2007 +A2: 2011 (Safety and control devices for gas burners and gas burning appliances) to give it consistency with other, similar, safety and control devices.
- Additional requirements have been included to ensure the integrity of computer memory, where this is used to store the non-volatile lockout status.
- New requirements have been introduced for remote reset from lockout
- New requirements have been included to cover software design and verification using techniques based on IEC 61508-3 & IEC 61508-7
- The severity level of several EMC immunity tests (Static discharges, Transient Bursts and Surges) has been increased to “level 4” to bring EN 298 into line with related product standards such as EN 60335-1.
- The radiated immunity test has been extended to cover a new higher-frequency band of 1.7GHz – 2GHz
- Additional requirements have been included to consider “common cause” failures on devices that include replaceable protective devices (e.g., fuses) and may include the need to perform a 500A short-circuit test.

Q3. So all burner controls supplied today must comply with EN 298: 2012?
No, not at all – compliance with any European Standard is always voluntary, and EN 298 is no different. The legal requirement for gas appliances and controls is that products placed on the market must be “safe” and compliant with the essential requirements detailed in the Gas Appliances Directive (and any other Directives that may apply). For oil burners and appliances, the requirements are broadly the same, but the safety of these products is regulated by the Low Voltage Directive (and any others that may apply).
Compliance with EN 298: 2012 would be a good way of showing compliance with both of these legal requirements, but there may be other standards or documents that could demonstrate this equally well.

Q4. Can I still supply burner controls that comply with EN 298: 2003 after May 2015?
Yes, provided they are “safe” as required by the Gas Appliances Directive at the time each individual control is placed on the market. Of course, this may be some considerable time after the controls were originally designed.

In practice, EN standards are frequently used to provide a working definition of the term “safe” and we can consider that the introduction of the new EN 298: 2012 has updated our definition of the term “safe” as applied to electronic burner control systems. Therefore, manufacturers of gas appliances and burner control systems would be well advised to do something to ensure the controls they use are still “safe” within today’s meaning. Doing nothing would not be a good option, as this may potentially leave the manufacturer open to allegations of unsafe equipment.

Q5. So my “old” controls to EN 298: 2003 (or EN 230) must be retested and certified?
No. The Gas Appliances Directive 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 decide whether the control system is still “safe” within the new meaning introduced by EN 298: 2012. It is perfectly possible that some existing designs already meet the new requirements of EN 298: 2012 and, if so, there is no basis for requiring the manufacturer to incur the additional cost of having their control re-certified.

Of course, the manufacturer 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, as a result of the review, the manufacturer decided that they needed to modify the control to meet the new requirements then the modified control would have to be submitted to a Notified Body for certification as with all modifications.

Q6. What is BSI’s policy on handling the transition?
BSI has created a policy document describing how this will be managed with BSI’s surveillance clients (available on demand). BSI is looking for all of its 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 (an internal report, for example) that an existing control already meets the additional requirements of EN 298: 2012.
- 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).

BSI has developed an “upgrade” offering for controls that complied with EN 298: 2003 and need to comply with the 2012 edition. We will be introducing attractive pricing for clients that choose to upgrade their control systems during 2014 (as we anticipate a lot of interest in early 2015).

Q7. What if I have any further questions?
In the first instance, please contact Graham McKay – Global Head of Electrical & Gas Products (graham.mckay@bsigroup.com)