An extract from the FIA paper on CPR and how it is implemented.
Published on their website, www.fia.co.uk

CPR can into force 1st July 2013 so anything after that built or sold on the market to a harmonised standard must comply with the relevant part of EN 54, all of EN 54 is harmonised. The UK Fire Industry Association (FIA) strongly supports third-party certification for fire safety equipment, including those certified to EN 54 standards. They view it as a crucial way to ensure quality, reliability, and compliance with fire safety regulations, providing building operators and responsible persons with confidence in the performance of fire protection systems.
Here's a more detailed explanation:

- **Importance of Third-Party Certification:**

  The FIA emphasizes that third-party certification provides evidence that all necessary procedures have been followed, offering transparency and reassurance, especially in the event of a fire.

- **Meeting Regulatory Requirements:**

  The Construction Products Regulation (CPR) mandates third-party approval for all fire detection and alarm equipment to be legally placed on the European market, including the UK.

- **Enhancing Quality and Reliability:**

  Third-party certification, like that provided by the Loss Prevention Certification Board (LPCB), helps ensure that fire safety equipment meets high standards of quality and reliability, reducing the risk of system failures and false alarms.

- **Building Confidence and Trust:**

  By insisting on third-party certification, building operators can demonstrate due diligence in selecting competent fire safety providers and ensure the systems they install are fit for purpose.

- Specific Standards:
  EN 54 is a European standard covering various aspects of fire detection and alarm equipment, including control panels, smoke detectors, heat detectors, and alarm devices. BS 5839-1 is a British Standard that provides a code of practice for the design, installation, commissioning, and maintenance of fire detection and alarm systems in non-domestic buildings.

Third-party EN54 approval for a fire alarm system is crucial because it ensures the reliability, performance, and safety of the system's components and their integration. This approval guarantees that the system has been rigorously tested and assessed by an independent body, providing confidence in its ability to detect and warn of fire effectively.
Here's why it's necessary:

- **Compliance with regulations:**EN54 is a series of European standards that specify requirements and test methods for fire detection and alarm systems. Third-party approval demonstrates compliance with these standards, which are often mandated by building regulations.
- **Ensuring system integrity:**

  EN54-13 ensures the compatibility and connectivity of system components, ensuring that they work together effectively and don't compromise life safety.
- **Independent verification:**

  Third-party approval provides an impartial assessment of the system's performance, giving building owners, operators, and occupants confidence in its reliability.
- **Reduced risk and liability:**

  A system with third-party approval helps mitigate the risk of false alarms, system failures, and potential liability in the event of a fire.
- **Confidence in the system:**
  EN54 approval assures that the system has been tested under strict conditions and can perform as intended, providing peace of mind to those responsible for fire safety.

- **Third Party Approval**
- In the UK one of the big changes in the whole fire equipment arena is the compulsory third party approval of all fire detection and alarm (FD&A) equipment. Some European member states have had this situation for many years but since the Construction Products Regulation (CPR) came into effect it has been clear that it is mandatory for all FD&A equipment to be third party approved in order for the products to legally be placed on the European market.

- Product certification can be costly, typically £50K-£150K for a single panel which may be sold in relatively small numbers. To avoid expensive re-approval costs, UK representatives have argued to minimise any retesting and re-certification with the new standards. However, it is likely that some re-testing will be required because the EMC standard has been updated and a new environmental assessment standard is now used to specify the environmental tests.
- To comply with CEN rules it was necessary for both EN 54-2 and EN 54-4 to be completely redrafted. This was a torturous exercise but it did cause the working groups to review and challenge the content of the standards. As mentioned above, every effort was made to not require technical change of existing products but it did allow some updated thinking to be introduced into the standards.
- At the last review of EN 54-1 a change was made to the application of EN 54-4. Originally EN 54-4 was intended to be used for power supplies of control and indicating equipment (CIE) only. Now it should be used for all FD&A equipment that needs or incorporates a power supply. For CIE there is therefore no real change but various new optional power supply formats are specified, which should allow more effective power supplies for voice alarm equipment and alternative alarm system topologies. Requirements are now included for non-integrated power supply equipment, (PSE), integrated PSE with external outputs, integrated PSE without external outputs, distributed PSE and PSE controlled by software and related technologies.

- **Optional Features**
  CEN TC72 considered two extreme solutions to this problem. One was to strip out all the options and only specify the core requirements. The alternative approach was to include all the options within the standard and this approach was chosen. A manufacturer is able to declare 'no performance determined' (NPD) against specific performance characteristics for which there is no legislative requirement in the manufacturers chosen market segment. The Declaration of Performance (DoP) for a product is the key document where that declares the features and performance of a product. The forward and introduction to the new draft EN 54-2 explains that it is expected that all CIE should comply with clauses 4.1, 4.2.1, 4.3 and 4.4, but that all of the other 4.2.x clauses can be declared NPD if the manufacturer so wishes. This is very important for specifiers to be aware of because in the UK it is normal for fire alarm systems to comply with BS 5839-1 or BS 5839-6 for commercial and residential properties respectfully. Both standards require certain features of the CIE that are not required in some other markets in Europe so may not be provided by a manufacturer who does not have the UK as its main focus.