

### Comment #332

"All equipment subject to this clause shall conform to IEC 60950-1. In particular, the PSE shall be classified as a Limited Power Source in accordance with IEC 60950-1."

IEC 62368-1 is the successor to IEC 60950-1. We have put references to this IEC standard in other parts of the document, but here (in the requirement) it was omitted.

#### *Suggested Remedy*

Replace by:

"All equipment subject to this clause shall conform to IEC 60950-1 and IEC 62368-1. In particular, the PSE shall be classified as a Limited Power Source in accordance with IEC 60950-1 and shall be classified as Power Source Class 2 according to IEC 62368-1."

IEC 62368 defines PS2 as "PS2 is a circuit where the power source, (see Figure 36) measured according to 6.2.2:"

" - exceeds PS1 limits; and"

" - does not exceed 100 W measured after 5 s."

Right now IEC 62368-3 is out for vote and will reach 3.0 stage after April.

This standard is specific to PoE and USB powering: "Safety of electronic equipment within the field of audio/video, information technology and communication technology"

We will need to review it and possibly include a shall statement for it as well.

#### **Yair Response:**

I am not sure why we need to claim requirements from both standards. Currently we are in transition from IEC60950-1 to IEC62368-1 and product can be certified to IEC60950-1 or IEC62368-1

In order to have smooth transition paragraph 4.1.1 of IEC 62368-1 says:

*"Components and subassemblies that comply with IEC 60950-1 or IEC 60065 are acceptable as part of equipment covered by this standard without further evaluation other than to give consideration to the appropriate use of the component or subassembly in the end-product."*

*NOTE This paragraph will be deleted in edition 3 of this standard. It is added here to provide a smooth transition from the latest editions of IEC 60950-1 and IEC 60065 to this standard"*

It means if product certifies to IEC60950-1 it automatically complies to IEC62368-1, until new edition 3 will be released and therefore I think there is some redundancy in requirement to conform to IEC60950-1 **AND** 62368-1

One can make arguments that LPS of IEC 60950-1 and PS2 of IEC62368-1 are not the same and theoretically this is correct

**However, there is a way to combine LPS and PS2 requirements and use one standard and this clearly recommended in IEC62368 in paragraph 6.5.3 and 6.6**

**“6.5.3 Requirements for interconnection to building wiring.**

Equipment intended to provide power over the wiring system to remote equipment shall limit the output current to a value that does not cause damage to the wiring system, due to overheating, under any external load condition. The maximum continuous current from the equipment shall not exceed a current limit that is suitable for the minimum wire gauge specified in the equipment installation instructions.

NOTE This wiring is not usually controlled by the equipment installation instructions, since the wiring is often installed independent of the equipment installation.

PS2 circuits or PS3 circuits that provide power and that are intended to be compatible with LPS to **external circuits** (see Annex Q) shall have their output power limited to values that reduce the likelihood of ignition within building wiring or external devices located in a different room.

*Compliance is checked with Clause Q.1.”*

**Annex Q1 is exactly LPS requirements (Q.1 Limited power source)**

**So instead of using the proposed remedy:**

"All equipment subject to this clause shall conform to IEC 60950-1 and IEC 62368-1. In particular, the PSE shall be classified as a Limited Power Source in accordance with IEC 60950-1 and shall be classified as Power Source Class 2 according to IEC 62368-1."

**I would recommend following statement:**

*Replace by:*

*"All equipment subject to this clause shall conform to IEC 62368-1.  
In particular, the PSE shall be classified as PS2 circuit and comply with  
Limited power source requirements (LPS) of Annex Q of IEC 62368-1."*

In this case we use one latest standard.