

My Product Line Went to Hazard Based 62368-1, and All I Got Was This Lousy CB Report (Update 9/2018)



The objective of this article is to offer an alternative to the CB route of compliance to meet the new European safety standard **EN 62368-1 Audio/video, information and communication technology equipment - Safety requirements** for equipment having an existing IEC 60950-1 CB certification.

The EU has extended the mandatory implementation date of the new hazard-based standard, EN 62368-1 to December 20, 2020, which means that Information Technology Equipment (ITE) shipped into the EU after this date will require compliance to the new standard whether it is currently certified or not, i.e. no grandfathering. For companies with many products required to go through transition, this can be an expensive and time-consuming process.

In this Article we will compare two methods of upgrading products to the new hazard-based requirements of the Low Voltage Directive (LVD). The aim is to analyze whether the potential benefits of an alternative compliance route can outweigh those of the more conventional method. The two methods in question are:

- Conventional update of existing CB Scheme certifications (CB update approach), or
- Alternate path of producing new Low Voltage Directive (LVD) reports (LVD report approach)

The LVD is part of Europe's CE marking platform. No matter which method is chosen to demonstrate compliance with the LVD, the CE mark rules mandate, for all practical purposes, that the manufacturer self-declare compliance with the requirements. This means that even if a CB certified body triple stamps the certification documents, the responsibility of conformity with the LVD still rests on the manufacturer, i.e. Self-Certification.

Many ITE manufacturers routinely obtain CB Scheme certifications for their products. The main advantages of CB certification are:

1. Can, generally speaking, be relied upon to declare compliance to the EU's Low Voltage Directive (LVD);
2. Can serve as a "passport" for other international certifications;
3. Relative ease of tried and true certification process (for most types of computer related equipment); and
4. When bundled with NRTL (e.g. UL, CSA, MET) certifications for U.S. and Canada, does not add significant cost to a project.

The passport concept implies that CB certificates can be “easily” leveraged to obtain other international certifications. (More on this idea to follow.)

An LVD report is similar to a CB report with the exception that it is exclusively used to declare compliance with the EU’s LVD. Another advantage of the LVD report is that it can be produced by anyone from a CB certification body to the manufacturer of the product in question.

Bundling Issues:

In the instance where products must be upgraded to meet the new European requirements, some of the advantages mentioned above for CB scheme certification are negated. Let’s take bundling for example; The US and Canada have also adopted the EU implementation date of the new hazard based standard, but unlike the EU where compliance becomes mandatory, the NRTL’s will only require new products and those with significant changes to comply with the new standard. This means that if a current product remains the same, in basic layout and function, the existing NRTL certification to UL/CSA 60950-1 should not need to be updated. Without the NRTL bundling, the cost of CB certification alone becomes significantly higher.

Not as Easy as it Used to Be:

Another area where the CB update approach is marginalized is in the ease of the certification process. One must keep in mind that not only is this process new for manufacturers, it is also new for certification engineers. These engineers do their best in applying the requirements of the standard, but they are human and mistakes will occur. By the time most manufacturers fully commit to updating their existing products, the deadline fueled influx of work will necessitate that laboratories have “all hands on deck”, the good, the bad, and the ugly. Consequently, manufacturers run a considerable risk of being assigned a project handler of the bad or ugly variety, who may misinterpret the new requirements. Any non-compliances found during a CB evaluation must be corrected to the CB body’s satisfaction regardless of actual validity. The back and forth communication to resolve these perceived non-compliances will waste valuable time. In general, since the LVD report approach is strictly used for self-certification purposes, it allows the manufacturer greater involvement and accountability for the certification process and enables projects to be completed in shorter time frames.



Because the LVD report does not require the exclusivity and overhead of a CB certification body, the cost and time to obtain one can be significantly less.

Is Your New Passport Accepted?

To complicate matters, the European upgrade upheaval, pulls the rug out on the CB passport concept. The main advantage of a CB Scheme certification is the ability to leverage it to gain certification in certain international markets. As of now, many international markets do not accept the 62368-1 base standard and most are uncertain as to when they will accept it. This means that a CB Scheme certification to the new standard may not be accepted as a “passport” for some time after the transition date, but existing CB certifications would still work. For example, if China does not convert IEC 62368-1 into an official Chinese GB standard, a CB report to that standard will be useless in obtaining Chinese CCC certification, but the existing CB scheme to IEC 60950-1 would still provide value.

When and Where is Your CB Certification Really of Value:

You may be thinking, “What if I upgrade my existing product line using the LVD self-certification route instead of CB certification, and subsequently international markets to which I sell adopt the 62368-1 base standard: Will I have to upgrade to a new CB certification at that time?” This question requires some explanation of the value of the CB report as a passport. In general, no certification body requires CB certification as a prerequisite to obtaining their national certification. The value of submitting a CB certification varies greatly from Certification Body to Certification Body. Some country Certification Bodies will accept CB reports carte blanche, and some will only use them as a reference. The chart below indicates the relative benefit of a CB certification in obtaining some common international certifications using a server as an example.

CB Benefit Analysis Chart for ITE Server*

Country/Safety Certification Scheme	Safety Evaluation Required	CB Member Country	*CB Benefit Rating: ★★★★	*Benefit analysis of submitting CB Scheme Report
Argentina/S Mark	No	Yes	N/A	Argentina does not require safety as part of the S Mark certification scheme for computer servers (Professional Equipment).
Australia/RCM	No	Yes	N/A	Australia does not require safety as part of the RCM certification scheme for computers.
Brazil/INMETRO	No	Yes	N/A	Brazil does not require safety as part of the INMETRO certification scheme for computers
China/CCC	Yes	Yes	★★	Cost savings can be a few hundred dollars. Time savings of 1-2 weeks. Submission of sample is still required.
India/IS	Yes	Yes	★	Negligible cost or time savings. Submission of sample is still required.
Israel/Moital	Yes	Yes	★★★★	Considerable cost and time savings. Submission of sample not required.
Japan/PSE	No	Yes	N/A	Japan does not require safety as part of the PSE certification scheme for computers.
Korea/KC	No	Yes	N/A	Korea does not require safety as part of the KC certification scheme for computers.
Mexico/NOM	Yes	Yes	★	Negligible cost or time savings. Submission of sample is still required.
Russia/EAC	Yes	Yes	★	Negligible cost or time savings vs LVD report. Submission of either (LVD or CB) can yield savings mainly in time vs. no report. Submission of sample not required.
South Africa/SABS	Yes	Yes	★★★	Considerable cost and time savings. Submission of sample may still be required.
Taiwan/BSMI	Yes	No	★★	Cost savings of a few hundred dollars, and time savings of 1-2 weeks. Submission of sample is still required.

***Notes:**

- 1) International compliance rules are ever changing. The chart above is a snap-shot in time given current conditions (9/2018).
- 2) CB Benefit rating takes into consideration cost and time savings of certification along with the requirement to ship samples to the destination country.
- 3) The information in the chart above is based on the authors experience and may not be indicative of all experiences in the same region.
- 4) Different product types, such as audio/video or other office equipment, may yield different results; for this reason, it is recommended that similar analysis be conducted for other product types and countries

Conclusion:

As shown in the chart, a CB scheme certification offers varying degrees of benefit. If one is shipping to countries that have a CB benefit rating of three or four stars, it may make sense to upgrade existing CB certifications in anticipation that it is currently or will soon be accepted in those target markets. If, on the other hand, one is shipping to countries with no stated safety requirements, or those identified with a one or two-star benefit rating, it may make more sense to proceed with the LVD report option and address other international certifications on a case by case basis.

Should you upgrade existing CB certifications or go with a new LVD report? Hopefully this article has shed some light on which method will best serve your needs, and how to potentially save some time and money using the road less traveled.

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