

ITI Position Paper: IEC 62368-1, 3rd edition

Summary

The hazard-based safety standard IEC 62368-1 was developed to provide an "equivalent" level of safety to IEC 60950 (for information and communication technology (ICT) equipment) and IEC 60065 (audio-visual (AV) equipment). IEC 62368-1:2014 (2nd edition) was adopted in several

countries with the expectation that it would, in due course, replace IEC 60950-1 for ITE. However, it became apparent that some requirements in the 2nd edition are unintentionally more restrictive than the IEC 60950-1 requirements for many types of equipment. Some products that already comply with IEC 60950-1 (and will comply with IEC 62368-1, 3rd edition) are not able to comply with IEC 62368-1, 2nd edition unless the products undergo significant and costly redesigns that could negatively impact product performance and energy efficiency. Recognizing this issue, IEC published a 3rd edition of IEC 62368-1 in October 2018.

Some products that would meet both the prior (IEC 60950-1) and future (IEC 62368-1, 3rd edition) standard, and are deemed to be safe, do not comply with IEC62368-1:2014, 2nd edition. This could result in product manufacturers not selling some of their products in countries where IEC 62368-1:2014, 2nd edition is compulsory. Until IEC 62368-1, 3rd edition is globally accepted, product manufacturers may be unnecessarily obligated to redesign products and certify to multiple standards.

Why IEC 62368-1?

IEC 62368-1 is not just a merger of 60950-1 (ICT equipment) and 60065 (AV equipment). 62368-1 incorporates hazard-based safety engineering (HBSE), an approach that is invaluable for evaluating the numerous new affordable products available for home entertainment and use in small and home offices. A single harmonized standard gives a clearer framework to evaluate the safety of these products that have blurred the distinctions between AV and ICT equipment.

The intention of IEC 62368-1 is to provide greater flexibility to design safety measures while requiring rigorous analyses to ensure that products are safe to use and will not cause bodily injury or fire. Incorporating HBSE principles into the standard provides flexibility in product design and evaluation and enables manufacturers to keep up with technology without requiring frequent, expensive, and time-consuming revisions traditionally required by the prescriptive approach of 60950-1 and 60065.

As of September 2020, at least 30 countries around the world have adopted, or are in the process of adopting, IEC 62368-1, 3rd edition. To help resolve the outcomes discussed above, ITI recommends that countries adopt IEC 62368-1:2018, 3rd edition as soon as practicable and use it as a regulatory alternative to both IEC 60950-1 and IEC 60065. When a national standard or country requirement based on IEC 62368-1:2018, 3rd edition is officially published, countries should maintain acceptance of the already existing IEC 62368-1, 2014, IEC 60950-1 and/or IEC 60065 standards, for a period of at least three years from the final publication date, which is considered a reasonable transition period for IT/AV products.



Recommendations to National Standards Bodies and Regulators

To ease the transition between standards and ensure ease of doing business, ITI recommends standards bodies and regulatory authorities take the following actions:

- Adopt IEC 62368-1:2018, 3rd edition as soon as practicable. This state-of-the-art safety standard should be used as a regulatory alternative to IEC 62368-1:2014, IEC 60950-1 and/or IEC 60065.
- When a national standard or country requirement based on IEC 62368-1:2018, 3rd edition is officially published, countries should maintain acceptance of the already existing IEC 62368-1, 2014, IEC 60950-1 and/or IEC 60065 standards, for a period of at least three years from the final publication date, which is considered a reasonable transition period for IT/AV products.

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