JMC Japan Machinery Center for Trade and Investment

April 30th, 2026

Saudi Standards, Metrology and Quality Organization
P. O .BOX : 3437 Riyadh 11471
Email: enquirypoint@saso.gov.sa

Subject: Comments on the General Battery Safety Technical Regulation Draft (M.E-02-04-18-166)

Dear Sirs,

The Japan Machinery Center for Trade and Investment ("**JMC**") is a non-profit organization with the character of a public-interest corporation. It was established in December 1952 in accordance with the Japanese Export and Import Trade Law under the authorization of the Minister of Economy, Trade and Industry of Japan. The objective of the JMC is to engage in activities that enhance the common benefit of member companies and promote the sound development of international trade and investment by the machinery industry. JMC comprises member companies engaged in machinery and systems-related exports and foreign investments such as machinery manufacturers, trading houses and engineering companies. At present, the total number of JMC member companies is about 230.

Our committee handles environmental and product safety issues regarding products for trade and is strongly concerned with overseas environment- and product safety-related regulations on products. From this standpoint, we would like to send our comments on the General Battery Safety Technical Regulation Draft (M.E-02-04-18-166).

If you have any questions, please feel free to contact our secretariat (Ms. Akari Shiga, E-mail: shiga@jmcti.or.jp).

Sincerely yours,

Chairman
Environment Law Committee

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JMC Japan Machinery Center for Trade and Investment

JMC Comments on the General Battery Safety Technical Regulation Draft (M.E-02-04-18-166)

The Japan Machinery Center for Trade and Investment would like to express our gratitude to the government of the Kingdom of Saudi Arabia for inviting comments via WTO/TBT on the proposed General Battery Safety Technical Regulation Draft (M.E-02-04-18-166).
https://docs.wto.org/imrd/directdoc.asp?DDFDocuments/t/G/TBTN18/SAU1078A1.docx

We fully support the objective of this Regulation to enhance product safety, public health, and environmental protection in the Kingdom of Saudi Arabia. However, as there are several issues with the "General Battery Safety Technical Regulation Draft," we would like to propose the following amendments to the draft.

Regarding Appendix (1), Essential Requirements, Clause 6.3 "Ease of Battery Removal"

With respect to the requirement stipulated in Appendix (1), Clause 6.3, “Batteries must be designed for easy and safe disassembly without complex tools" and “… must include a detailed disassembly guide to facilitate reuse and recycling”, we have concerns that this requirement presents serious challenges from the perspectives of safety and product service life and unreasonably restricts product design, hampering manufacturers in providing innovative products to our customers in Saudi Arabia.

First of all, we would like to ask for clarification on the scope of 6.3.

If the scope is stand-alone batteries, and the requirement is that the battery itself shall be easy to be disassembled, that is unrealistic in terms of safety.

If the scope is batteries embedded in a product, and the requirement is that such a battery shall be easily removable from a product, we have following concerns.

Some batteries embedded in products are intended to last longer than the product lifetime and not intended to be replaced by end-users or repairers as there is no such need. Such batteries need not be accessible so are often embedded in a deep inner layer of the product or sealed inside a product, either of which is often the case particularly for precision devices or waterproof products.

Also, as waste processors or recyclers do not see guidance documents provided to consumers, providing a disassembly guide with a product may not serve its purpose.

We therefore request clause 6.3 be modified as follows:

6.3 Batteries must be removable from a product by recyclers or waste processors at the end of the use of a product. ~~designed for easy and safe disassembly without complex tools, minimizing adhesives and permanent soldering, and must include a detailed disassembly guide to facilitate reuse and recycling.~~

For your reference, the following are challenges and examples associated with "Designs That Allow Anyone to Easily Remove Batteries"

- **Safety Risks (Fire and Chemical Burns)**

Button cells and lithium batteries used in small wearable devices have high energy density. If users without specialized knowledge attempt to remove them forcibly, there is a risk of battery damage, short-circuits, heat generation, or even explosion. There is also a risk of chemical burns caused by electrolyte leakage.

- **Loss of Product Integrity and Functionality (Reduction in Waterproof and Dustproof Performance)**

Waterproof devices, such as wristwatches, are sealed using precise gaskets and adhesive technologies in accordance with international standards such as ISO 22810. If end users open the casing themselves, these sealing structures may be compromised, allowing moisture or dust to enter and cause internal failures, resulting in permanent loss of safety and reliability.

- **Technical Difficulties and the Need for Specialized Tools**

Disassembling precision equipment requires various specialized jigs, and if waterproof testing is to be performed after reassembly, specialized pneumatic equipment and other specialized tools and techniques are necessary. These are not easily accessible to ordinary consumers, and improper handling may lead to product damage or injury.

Environmental and Sustainability Concerns

Improper disassembly by users may cause premature product failure, increased waste and undermine the Regulation’s objective of promoting recycling and effective resource utilization. Replacement performed by qualified technicians in appropriate environments enables simultaneous replacement of surrounding components and extends the product’s lifespan.

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