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ZVEI position paper

Portable batteries vs. industrial batteries in accordance with the EU Batteries Regulation 2023/1542/EU

The ZVEI and its member companies have scrutinized the provisions of the EU Batteries Regulation 2023/1542/EU (BATT2). In principle, the ZVEI supports the objective of the regulation for greater sustainability of batteries. Nevertheless, the distinction between portable and industrial batteries is particularly important. The relevance of this distinction and how it is to be applied are explained below.

1. Present situation and the relevance of the distinction to electronic safety and security systems

According to Article 6 of BATT2 in conjunction with Annex I No 3, with effect from 18 August 2024 the lead content (expressed as lead metal) of portable batteries by weight must not exceed 0.01%. By contrast, industrial batteries are not subject to restrictions in the lead content. Furthermore, natural or legal persons who place products on the market in which portable batteries are fitted must ensure that these batteries can be easily removed and replaced by the end user at any point in the product's service life (Refer in this context to Article 11 BATT2, which comes into force on 18 February 2027.). These requirements do not apply to industrial batteries.

The question therefore arises as to how batteries are to be classified as either portable batteries or industrial batteries in practice in safety and security technology (most notably, but also in other areas). This is particularly an issue given that Article 3 (1) 13 of BATT2 legally defines batteries (weighing 5 kg or less) as "industrial batteries" only where they are "specifically designed for industrial uses". Industrial batteries were still defined in Article 3 (6) of the Battery Directive 2006/66/EC (referred to below as the Battery Directive) as being exclusively for "industrial or professional uses".

The problem this presents is particularly relevant for power supplies, and above all for emergency power supplies for safety and security systems, for example for fire detection and fire alarm systems, voice alarm systems or smoke and heat extraction systems which fall within the scope of European harmonized standards under the EU Construction Products Regulation, and also for battery-powered emergency escape lighting systems/self-contained emergency luminaires. These power supplies include all chargers designed for charging lead gel batteries or in the case of self-contained emergency luminaires for nickel-cadmium batteries. Over the past decades, the companies represented in the ZVEI's Safety and Security Section have placed well over a million such safety and security systems on the market. These systems are installed throughout Germany and in other European countries and require regular servicing, including replacement of the emergency power supply, i.e. the battery. For technical reasons, the lead batteries used cannot be replaced by other battery technologies in the medium term, much less in the short term. These reasons particularly include differences in charging technology, and also approval issues (devices are tested and approved in accordance with European harmonized standards). Should replacement of the emergency power supply at regular intervals no longer be possible, however, the systems' functionality in the event of a fire and thus their compliance with the building regulations can no longer be guaranteed. In extreme cases, the consequences of this noncompliance with the building regulations may extend to prohibition of the building's use.

2. Legal differentiation: portable battery vs. industrial battery

Ultimately, all arguments suggest that batteries used (for example) in safety and security systems in buildings should continue to qualify as industrial batteries, and that the distinction between portable batteries and industrial batteries currently formulated in the Battery Directive should be retained.

2.1 Wording of the definitions

At first glance, it might be assumed that the category of industrial batteries has been narrowed by the amended wording of the legal definition. However, consultation of BATT2 shows that it refers to “industrial uses”. “Industrial uses” could be understood to include professional use or use in the trades.

2.2 Recital 15 of BATT2

Recital 15 of BATT2, in particular, also supports the classification of batteries as industrial batteries where they are specifically (though not necessarily exclusively) intended for professional use:
Recital 15 states i.a.:

“The industrial battery category encompasses a broad group of batteries, intended to be used for industrial activities, communication infrastructure, agricultural activities, or generation and distribution of electric energy. […]. In addition to this non exhaustive list of examples, any battery that weighs more than 5 kg that does not fall under any other categories under this Regulation should be considered to be an industrial battery.”

An earlier passage in Recital 15 clarifies that *“Batteries used for traction in other transport vehicles including rail, waterborne and aviation transport or off-road machinery, continue to fall under the category of industrial batteries under this Regulation*.”

Recital 15 thus also includes among “industrial batteries” applications that, by lacking any connection to production activity, are not easily classified as such within a narrow understanding of the term “industrial”, and thus expands the scope of the term accordingly. Moreover, it is to be understood from Recital 15 that the term “industrial battery” is broader in its scope than “portable battery” (“broad group of batteries”; “non exhaustive list of examples”), and that in cases of doubt, a battery should be classified as an industrial battery (catch-all provision). This “catch-all provision” is explicitly clarified by the legislator for all batteries that weigh more than 5 kg and are not classified under any other category of the EU Batteries Regulation.

2.3 Reference in Recital 15 to the Battery Directive

Consideration of the Battery Directive also favours classification as industrial batteries. Recourse to the Battery Directive for this purpose is also possible and indeed appropriate, since it is referred to in Recital 15 of BATT2 itself, viz.:

“*The classification into portable batteries, on the one hand, and industrial batteries and automotive batteries on the other hand under Directive 2006/66/EC should be further developed to better reflect new developments in the use of batteries.”*

Furthermore, it is expressly stated that the new battery categories of EV and LMT batteries were introduced to take account of the huge changes in batteries’ actual use in electric vehicles and light means of transport. These categories were not therefore introduced in order to shift the distinction between portable and industrial batteries. Reference can thus continue to be made to Recitals 9 and 10 of the Battery Directive for distinguishing between industrial and portable batteries.

According to these recitals, batteries qualifying as portable batteries were and are those used by consumers for normal household purposes. Batteries used in safety systems, for example, do not fall within this category, not least because the consumer does not generally come into contact with the systems concerned. Furthermore, general-purpose (mutually compatible) portable batteries are not used for such applications.

2.4 Batteries in safety-related systems intended for the communication infrastructure

Recital 15 of BATT2 explicitly classifies batteries intended for the communication infrastructure as industrial batteries. The functions of safety-related systems, for example fire detection and fire alarm systems (incident reception, evaluation, initiation of responses such as relaying to control centres or raising of internal alarms) are typical forms of information transmission and can readily be assigned to the concept of communication (for safety purposes). In addition, in the event of a power failure (which in the event of a fire is usually caused by the fire brigade switching off the mains power supply of the building), the emergency power supplies continue to assure the safety-related functions of the safety systems. This includes fire alarm functions and all associated activation of alarm functions, and monitoring of the grid relevant to the system. It is important that all safety functions continue to be assured in this way in the event of a fire.

2.5 Compatibility with other provisions of BATT2

It should be noted that the collection, container and transport logistics of national take-back and collection systems for end-of-life portable batteries are unlikely to be geared to take-back on a large scale of batteries such as 3.5 kg lead-gel batteries. A further obstacle to the compatibility of such end-of-life batteries with the collection and take-back arrangements of Article 59 ff. of BATT2 is that they often possess commercial value: the resulting return of these batteries through other channels would result in their circumventing the collection quotas for end-

of-life portable batteries that are to be attained in accordance with Article 59 (3) of BATT2. For this reason, too, the only reasonable solution appears to be to retain the existing distinction between portable and industrial batteries.

2.6. Result

Batteries, particularly lead-gel batteries and nickel-cadmium batteries, that are used for emergency power supplies for safety and security systems are categorically to be classified as industrial batteries. The possibility of lead-gel batteries and nickel-cadmium batteries for emergency power supplies for safety and security systems being used **on a case-by-case basis** for other purposes does not negate this statement.

3. Classification according to intended use

A battery or battery model must be classified consistently as either a portable or industrial battery. Accordingly, a battery cannot be classified as both an industrial battery and a portable battery, depending on its use. Any other understanding would make satisfying the requirements of BATT2 (such as material restrictions, labelling, registration, collection, etc.) impracticable.

To a certain extent, this will also depend on the intended use and possible applications specified by the producer. Since, as in the past, the distinction must be based on use for domestic purposes, criteria of intercompatibility, battery voltage, chemical system, geometry, terminals and price are also likely to be relevant. Batteries for use in consumer products whose use is traditionally considered at least to extend to the domestic sphere (laptops, mobile phones, etc.) should also as a rule be qualified as portable batteries, even if they are not universal portable batteries. However, making the distinction dependent upon the sales channel no longer appears appropriate, as consumers are now able to purchase almost any product, at least in online stores.

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