



## Memorandum

**TO:** The Commission  
Alberta E. Mills, Secretary

**DATE:** January 23, 2023

**THROUGH:** Austin C. Schlick, General Counsel  
Jason Levine, Executive Director  
DeWane Ray, Deputy Executive Director for Operations

**FROM:** Duane E. Boniface, Assistant Executive Director,  
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Division of Mechanical and Combustion Engineering,  
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**SUBJECT:** Written Response to Briefing Questions Re: Draft Notice of Proposed  
Rulemaking: Safety Standard and Notification Requirements for Button Cell or  
Coin Batteries and Consumer Products Containing Such Batteries

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On January 18, 2023, staff provided a public briefing to the Commission on the Draft Notice of Proposed Rulemaking for a Safety Standard and Notification Requirements for Button Cell or Coin Batteries and Consumer Products Containing Such Batteries. Below, staff answers two questions from Commissioner Boyle to which staff promised written responses:

**1. Are there any gender differences in the button cell or coin battery ingestion incident data?**

Differences by gender are observed within various incident data; however, the differences are not necessarily comparable or consistent across various data sources.

- National Electronic Injury Surveillance System (NEISS)-derived estimates are intended to be statistically representative of nationwide U.S. emergency room visits. Estimates of U.S. emergency department-treated ingestions or insertions from 2011 to 2021, as derived from the NEISS probability sample, identify an estimated 31,400 (58%) as male, with an estimated 22,900 (42%) identified as female. These estimates consolidate all ages together, and the observed distribution by gender may vary by age group. Refer to Pages 52 and 62 of the Staff Briefing Package (OS 156 and OS 166, respectively).
- Reporting from the Consumer Product Risk Management System (CPSRMS) may be anecdotal and is not necessarily statistically representative. Among the 25 CPSRMS reported deaths, a majority (16, or 64%) were indicated to be female. A minority of

reported decedents (9, or 36%) were indicated to be male. Refer to page 63 of the Staff Briefing Package (OS 167).

- Among CPSRMS reported *nonfatal* ingestions only, 51 percent indicated males, and 40 percent indicated females, with the remaining 9 percent not reporting the gender of the victim. Refer to Page 64 of the Staff Briefing Package (OS 168).

## **2. What are the market trends for the use of button cell or coin batteries in consumer products?**

Staff assessed the market for consumer products using button cell or coin batteries to be growing, based on the increasing number of products powered by these batteries.<sup>1</sup> Due to the variety of industries that develop consumer products using button cell or coin batteries, staff used battery data as a proxy for the growth in use of such products:<sup>2, 3</sup>

- Alkaline batteries have been accounting for a lower share of total produced battery capacity, with lithium batteries accounting for a larger share each year. The majority of alkaline batteries purchased in the United States are produced in North American facilities (mainly U.S. and Mexico), while nearly all lithium products are coming from Southeast Asia. Year-over-year increases in the total production of lithium batteries has exceeded double digits since approximately 2018.

Staff assessed the regional battery production hubs are unlikely to change in the near future. Market obstacles for sustained growth include the availability of raw material for battery production. Significant investments would need to be made around the globe for extraction of enough raw material to maintain the high battery production growth rates.

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<sup>1</sup> Staff review of retailer websites and product catalogs.

<sup>2</sup> Size of global battery market 2018 to 2021, by technology. Inkwood Research 2022.

<sup>3</sup> Building Resilient Supply Chains, Revitalizing American Manufacturing, and Fostering Broad-Based Growth. White House 2021.