

**FINAL**

**The Commission to Advance Lithium-Ion Battery Safety in Maryland; SB532 /CH950 in MD Mtg  
Thursday, September 18, 2025, 10:00am – 12:00pm**

**In Person: Maryland Fire and Rescue Institute Headquarters  
University of Maryland  
4500 Campus Drive  
College Park MD 20742**

**Google Meet joining info**

**Video call link: <https://meet.google.com/ivx-gijq-uxv>**

**Or dial: (US) +1 662-676-0243 PIN: 677 980 430#**

**More phone numbers: <https://tel.meet/ivx-gijq-uxv?pin=4261439222721>**

Commission members attending the meeting in person were marked present as follows: **Emil Nusbaum, Vincent Baker, Geoffrey Donahue, Kitty McIlroy, Christopher Pilzer, and Justin Short.**

Commission members attending the meeting virtually were marked present as follows: **DeAndre Wilson.**

Absent Commission Members: **Taiwo Alo, David Black, Marc Boolish, Ivan Browning, Michael Cox, Garrett Fitzgerald, Haley Kotzker, Christopher Neidhart, Nicholas Rodricks, Ginny Rogers, and Robert Whittlesey.**

Members of the public were in attendance.

Staff in attendance: **Kenneth Bush** and **Penny Doty, MSP**

Presenters: Chairman Emil Nusbaum – MD Commission Update

Roll call was completed by the Commission staff. The meeting was not called to order until 10:11 a.m. by Chairman Emil Nusbaum. Chair Nusbaum announced that no quorum had been reached as only 8 out of the total 20 Commissions are in attendance via in person or virtually. Therefore, the minutes from the August 14, 2025 meeting could not be motioned for approval.

Chairman Nusbaum presented the Commission with a PowerPoint summary listing updated activities from the charged Subcommittees in regards to the progress of the preliminary Final Report. The update/review summary presentation was reviewed with the Commission as follows:

- ❖ Utility Applications Preliminary Findings
  - Finding there have been safety risks regarding the use of energy storage device installations concerning Lithium-ion batteries for utility scale storage.
    - Moss Landing Event
    - Surprise Arizona (FRSI Study that necessitate NFPA 850)
  - Recommend:
    - The Commission recommends that the General Assembly pass legislation to mandate enhanced coordination between utilities and emergency management services, and increase participation from utilities in firefighter and first responder training as it relates to emergency response to utility-scale lithium-ion battery systems.
- ❖ Recommendations for Suppression and Deterrence of Lithium-Ion Incidents at Recycling Facilities
  - Findings:

- There has been an increase in li-ion battery fires at municipal solid waste and recycling facilities (curbside and residential) due to batteries and battery embedded products being improperly disposed of. These pose significant risks of fire, safety, and property damage.
  - New and emerging technologies need to be supported relating to delivery of recycled materials and sorting at MRFs
  - Public is largely unaware of what to do with li-ion batteries at EOL
- Recommendation:
  - Commission should recommend state legislation requiring education, mitigation, and enforcement of no li-on battery drop off into curbside or commercial containers
  - Recommend resources for public education campaigns to promote responsible battery disposal and recovery initiatives
  - Support adoption of x-ray detection technology to identify batteries improperly in solid waste and recycling streams
  - Promote battery safety containment equipment for those exposed to fire risks of improperly disposed of batteries
  - Work to set minimum standards for PPE, tools, equipment for working safely with li-ion
  - Funding for MFRI to create courses for first responders to understand li-ion battery fire risks and to help obtain necessary equipment (ensuring consistent messaging statewide.
  - Identify easily identifiable collection sites across state
- ❖ Consumer and Transportation Applications
  - Findings:
    - Safe use and storage of li-ion batteries should be promoted to the public to prevent fire risks
    - Public education is crucial to promoting safe battery use and recycling
  - Recommendations:
    - Adoption of most recent editions of IBC, IFC, and NFPA 1
    - Guidance on batteries being used with charger supplied by the OEM, damaged batteries must be disposed of properly and recycled
    - Batteries should be charged and stored in a location separate from living areas with outside ventilation, in a climate-controlled environment (garages typically a good place)
    - Avoid overcharge, remove swollen and damaged units from service, employees understand the hazards working with li-ion batteries
    - Funding for the state to conduct public education campaigns to assist local jurisdictions with their own campaigns. Education should include guidance on safe use, storage, transport, and disposal, and targeted outreach to workers, consumers, businesses, schools, and residences
    - Mandatory labeling and hazard placards for battery storage facilities
    - Statewide grants to establish fireproof DDR storage infrastructure that is NFPA compliant
  - Findings:
    - Li-ions present unique transportation risks and there is federal regulations and enforcement from DOT, IATA, IMDG. Enforcement and emergency support at the state level remain limited. DDR units in transit pose significant hazards – especially when in congested transport corridors.
    - Li-ion battery fires present unique hazard for first responders and require new tactics and equipment
    - Disposal of damaged batteries after fire events or vehicle collisions require specialized equipment, training, and resources for responding agencies
    - Lack of information on li-ion battery fire data
  - Recommendations:

- Require certified packaging and hazard placards
  - Special handling permits for DDR batteries
  - Quantity limits and routing controls for congested corridors
  - Funding for MFRI to develop comprehensive response classes for first responders as well as local jurisdictions to acquire necessary equipment and training to mitigate fires and their risks. Training should be available to EMS, Fire, Rescue personnel
  - Assigning single POC state agency for retrieval and disposal of batteries
  - Establish battery disposal cost recovery fund for responders
  - Incentives for recycling facilities to modernize to reduce fire risk
- ❖ Vitality of EPR
- Findings:
    - EPR programs typically segmented by battery size and weight (small format, medium, large)
    - CA, CT, CO, IL, NE, VT, WA DC, WA have li-ion battery collection EPR bills for small/mid-format
      - These bills utilize a producer financed battery stewardship organization
    - NJ only state for vehicle EPR bill however, nine other states have introduced legislation for vehicle batteries
      - EV battery bills differ where a BSO is not required. Producers can manage EPR programs on their own
    - Vehicle batteries:
      - Promote highest and best use of EOFL batteries and utilize existing EOL vehicle infrastructure
      - Battery transparency to promote safety, storage, waste classification, and highest and best use
      - Stranded battery management and takeback at the election of the vehicle owner or owner of the battery
      - Access and training

Chairman Nusbaum entertained questions and comments from the Commission members regarding the update and thanked the Subcommittee leaders and members for their hard work in compiling the recommendations for the draft Report.

Discussions continued regarding industry hazards concerning lithium-ion batteries including cargo vessel hazards related to container shipment of non-safety certified used electric vehicles which present substantial risks due to the possibility of incurred battery damage. Additional hazard topics, challenges and Commission follow-up actions were discussed as follows: 1) Some shipping containers are being intentionally/unlawfully mixed and mislabeled so they are accepted for transport or in some cases shipping lines are still accepting them for transport despite the hazard, 2) Vessels are being built with alternative electric powered engines posing added risk, 3) The shipping industry is embracing more and more eco-friendly electrified power sourced equipment for loading, etc. presenting additional hazards, 4) Concerns were also raised regarding transports of this electric vehicle class via railroad as well. 5) The Commission will work on gathering more information from the shipping industry and railroad industry regarding implemented safety guidelines utilized to address hazards. 6) The Commission will try to incorporate in the report the possibility of working with the Insurance industry in future initiatives beyond this Commission to collaborate risk reduction mitigation. 7) Aftermarket installs are becoming increasingly prevalent presenting additional hazards, for example, aftermarket lithium-ion battery powered tire monitor installs which cause an increased fire hazard during

recycling and shredding processes at recycling facilities. Future discussions with the tire manufacturing industry regarding hazard mitigation and collaboration will be recommended in the final Report if time does not allow for continued study by this Commission. 7) Recycling protocols and challenges for lithium-ion battery radioactive materials, i.e., smoke alarms, which require recycling by a radioactive material recycler.

The Commission discussed the challenges of data collection regarding lithium-ion battery fires and analytical processes, past and present. Standards for data collection and reporting of these types of fires have improved significantly of late by Fire Service, Fire Marshal Offices and National Reporting Agencies which now allow for enhanced data collection, analyses and studies. Unfortunately, fires from past incidences may not have been reported or categorized/captured correctly for accurate historical validation. Additionally, not all battery fires are reported or assisted by the fire service which hampers reporting/data collection.

The Commission members shared updates on current EPR/SWANA initiatives/frameworks, and upcoming legislative bills addressing recycling of batteries, especially at end of life/negative life. EPR is currently working on framework for embedded batteries which is a topic Maryland should engage in. Some of these bills/programs include battery producer funding, whereby a battery manufacturer pays into a fund managed by a battery restoration organization that then funds the collection sites for training, transportation/shipping, and assures chain of custody to a responsible management recycler. Even though this is a producer funded initiative, the cost will most likely source through the consumer via initial product pricing, but at an elongated contributory funding stream.

The Commission discussed the possibility of inviting a presenter from Montgomery County to speak about their curbside pick-up recycling pilot program, the ins and outs, the challenges, public education, funding resources, implemented changes and successes. Hopefully, a guest speaker can be retained before the Commission raps up the Final Report.

Emil Nusbaum will meet with Subcommittee members/leaders to finalize the draft Final Report which will be presented again at the next Commission meeting.

The Commission members were surveyed post meeting regarding the best date for the next Commission meeting. The Commission survey resulted in scheduling the next meeting which will be held on Thursday, October 23, 2025 at 10:00 (In person at MFRI or virtually).

Chairman Nusbaum inquired whether there was any additional/remaining business the Commission wished to address, and upon hearing none, the meeting was adjourned at 12:03 p.m.

These meeting minutes are respectfully submitted by Penny L. Doty.