

**FINAL**

The Commission to Advance Lithium-Ion Battery Safety in Maryland; SB532 /CH950 in MD Mtg

Thursday, August 14, 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/qga-wcpc-utv>

Or dial: (US) +1 901-244-3176 PIN: 717 130 182#

More phone numbers: <https://tel.meet/qga-wcpc-utv?pin=4781505151562>

Commission members attending the meeting in person were marked present as follows: Christopher Pilzer, Justin Short, Vincent Baker, Michael Cox, Christopher Neidhart and Geoffrey Donahue.

Commission members attending the meeting virtually were marked present as follows: David Black, Marc Boolish, Ivan Browning, Garrett Fitzgerald, Ginny Rogers, and DeAndre Wilson.

Absent Commission Members: Emil Nusbaum, Taiwo Alo, Haley Kotzker, Nicholas Rodricks, Kitty McIlroy and Robert Whittlesey.

Members of the public were in attendance.

Staff in attendance: Kenneth Bush and Penny Doty, MSP

Presenters: Fred Dolbow – Port Security/Recovery Specialist, Sector MD-National Capitol Region

Roll call was completed by the Commission staff. Due to technical difficulties, the meeting was not called to order until 10:11 a.m. by Commissioner Christopher Pilzer. Member Pilzer announced that a quorum had been reached as 12 out of the total 20 Commissions are in attendance via in person or virtually. Therefore, the minutes from the May 8, 2025 and June 5, 2025 meetings were motioned for approval and approved as presented.

Member Christopher Pilzer introduced Guest Speaker Fred Dubow, United States Coast Guard Port Security/Recovery Specialist, Sector Maryland-National Capital Region. The presentation was entitled, "Lithium-Ion Battery Maritime Concerns" and can be summarized as follows:

❖ Port of Baltimore

- SMFF Sub-Committee 1<sup>st</sup> meeting July 2022 & most recent May 2025
- 2023 Marine FF Workshop & TTX
- 2022 – 2025 Several Vessel Familiarization for Firefighters and Command Staff
- 23 Jun – 07 JUL 2025: BCFD Hosted a Marine Firefighting for Land Based Firefighters
- 2026 TTX RO/RO EV Fire at the Pier
- Containers w/ Lithium-ion (batteries, rechargeable tools & roys)

- 2023: 326 2024: 485 49% increase
- New Full Electric Vehicles
  - 2023: 2635 2024: 6690 154% increase
- Wallenius Wilhelmsen
  - Maximum State of Charge (SOC) 50% or lower, preferably below 30%
- Atlantic Container Line
  - SOC 20T to 50% on new
  - No used EV
- ❖ EV State of Charge
  - EVs most dangerous when fully charged. If temperature rises above a certain point, it can experience thermal runaway, emit toxic smoke vapors, and explode
  - Many fire departments lack adequate training, knowledge and general fire-fighting capabilities particular to vessels
  - Most shipping companies recommend maintain a State of Charge between 20% and 50% for high voltage batteries in EVs during maritime transport.
    - Lower end (20%): Ensures enough power for basic vehicle functions; driving, dwell time operation during at port, loading/unloading
    - Higher end (50%): Aims to prevent overcharging and potential damage or risks associated w/ higher SOC's. It also helps maintain optimal battery health over time.
  - The European Maritime Safety Agency (EMSA) Guidance, which is widely followed by shipping lines, also recommends an SOC between 20% and 50%
  - No mandatory IMO regulations specifically addressing the SOC for EVs transported on ships. IMO is working on mandatory regulations, with a target completion date of 2027. Interim guidelines for Fire Prevention, Detection, Suppression, Crew Training and Emergency Preparedness.
- ❖ Recent Industry Actions
  - Matson: Announced in July 225 suspension of all EV and PHEV shipments. Continental United States to/from Hawaii, Guam and Alaska
  - TOT Maritime Alaska: Announced in June 2025 a phased suspension of all EV, PHEV, and lithium-ion powered machinery shipments. Continental United States to Alaska and Canada.
  - TOT Maritime Puerto Rico: Announced in June 2025 a phased suspension of all EV, PHEV and lithium-ion powered machinery shipments. Continental United States to Puerto Rico and the Caribbean
  - The Internal Air Transport Association (IATA) is the trade association for the world's airlines, representing some 350 airlines over 80% of global air traffic recommends shippers of lithium-ion batteries packed in or with equipment (UN3481), or in vehicles (UN 3556 state of charge not exceeding 30% of their rated design capacity. Mandatory Limits Start January 1, 2026
- ❖ Notable Fires
  - R/RO Hoegh Xiamen June 202 Jacksonville enroute Baltimore (Grimaldi Group;ACL)
    - Vessel burned for 10 consecutive days, nine firefighters were subsequently injured, five of them seriously
    - Improperly disconnected battery in a used vehicle
  - RO/RO Felicity ACE March 2022 enroute RI then Baltimore (vessel sank)
    - 4,000 vehicles, including electric vehicles
    - Probable fire lithium-ion battery from one of the electric vehicles (EVs)
  - Conro Grande Cost D'Avorio July 2023 Newark departed Baltimore (Grimaldi Group/ACL)
    - Two Land-based firefighters died while attempting to put out the fire

- R/RO Fremantle Highway July 2023 department Germany enroute to Egypt
  - 3,783 vehicles, including electric vehicle
    - Probable fire lithium-ion battery from electric vehicle
- M/V Genius Star XI December Enroute San Diego, Safe Refuge Dutch Harbor, AK
  - Cause large industrial lithium-ion batteries
  - 25 December 1<sup>st</sup> fire in cargo hold 1 depleted all 153 CO2 bottles
  - 28 December 2<sup>nd</sup> fire in cargo hold 2
  - 30 December fire out
- M/V YM Mobility August 2024 China
  - Container explodes causing a large fire Lithium-ion batteries and tert-Butyl peroxybenzoate
- Port of Miami November 2024
  - Shipping container caught fire and exploded Tesla Model S with Hurricane Flood Damage
- Conro Grande Congo February 2025 enroute Baltimore (Grimaldi Group/ACL)
  - Possible cause, shift in vehicles stowed on deck due to heavy weather
- Conro Grande Brasile February 2025 English Channel (Grimaldi Group/ACL)
  - Possible cause, unknown
- RO/RO Delphine April 2025 Zeebrugge, Belgium
  - At 1500 fire on 3<sup>rd</sup> deck, 60 electric vehicles (lithium-ion)
  - Fire Dept on board, but did not directly engage
  - Deck sealed, CO2 activated.
  - Four tugs used to cool hull
  - 2200 Nitrogen pumped into space
  - Next morning fire extinguished
- RO/RO Morning Midas June 2025 300 miles south of Adak, Alaska
  - 3,159 vehicles-including 65 fully electric and 68.1 partial hybrid
  - Probable fire Lithium-ion battery from electric vehicle

#### ❖ USCG

- Safety Alert 06-20 November 30, 2020 – Recognizing Fire Hazards & Proper Cargo Stowage on RO-RO Vessels
  - Highlights: Ro/RO vessels carry unique cargo that have a higher potential to introduce fire hazards if required safety protocols are not properly implemented
  - Protect vehicle batteries against short circuiting, for example by disconnecting the battery if appropriate
- Safety Alert 09-23 November 20, 2023 – By land and Sea – Firefighting Prep is Key
  - Purpose – To raise awareness within the MTS of the unique dangers of shipboard fires, particularly onboard multi-level freight vessels like vehicle carrying Ro-Ro's
  - Engage with each other and their local Captain of the Port to establish regular shipboard firefighting education and training
  - Fire departments develop training, qualification, and response doctrine utilizing guidance from the NFPA 1005: Standards for Professional Qualifications for Marine Fire Fighting for Land-Based Fire Fighters, and 1405:
  - Guide for Land-Based Fire Departments the Respond to Marine Vessel Fires
- April 2025 Lithium Battery Fire Hazards in the Maritime Environment
  - The use of commercial maritime battery propulsion and energy storage systems, as well as the number of EVs and electric-mobility devices on commercial vessels (e.g., ferries) is rapidly increasing. In response, CG-ENG-4 requested the USCG Research and Development Center

- (RDC) to investigate LIB technology, battery fire behavior, battery fire suppression, and personnel risks.
- ❖ USCG – National SMFF Task Force
    - Team 1 SMFF Subcommittee Establishment:
      - Promulgate standardized guidance and tools for the establishment of SMFF Subcommittees in each COTP Zone. This will come with a prepared charter template and a recommended organization chart
    - Team 2 Marine Firefighting Planning:
      - Promulgate a standardized Marine Firefighting Plan (MFFP template Guidebook & framework to assist all US Ports in building operationally executable MFFPs for incident commanders
    - Team 3 VRP Activation Guidance & Tools:
      - Develop updated VRP activation guidance and tools for Coast Guard FOSCs that supports implementation of the MFFP & SRP to include a template ADMIN Order for VRP activation and SMFF QRC for Sector Command Centers to facilitate incident management and decision making, while fostering immediate incident communication between vessel Master, SMFF Industry, local Sector, and responding Incident Commander
    - Team 4 Training:
      - Identify SMFF training gaps and training resources for Coast Guard units, SMFF Subcommittees, and the U.S. Fire Service
    - Team 5 Port SMFF Studies:
      - Identification of SMFF Port Vulnerability Assessment (Threat Assessment) Case Studies and best practices guidance to demonstrate port capability gaps that Inform SMFF Subcommittee planning and preparedness efforts across our port communities

The presenter entertained questions from the members and thanked the group for allowing him to share his knowledge and expertise on the subject.

Member Kenneth Bush provided an update to the Commission regarding the State's adoption status of the Maryland State Fire Prevention Code and the incorporation of the 2024 editions of NFPA 1 and NFPA 101 which references NFPA 855. The State amended the Fire Prevention Code to include the 2024 editions which became effective June 23, 2025.

Member Ivan Browning shared information with the Commission information the Montgomery County's expansion of its curbside battery recycling program. The County now collects electronics and household batteries making it easier for residents to recycle these materials safely. The phased-in service will be available to all county residents who receive County-provided recycling services. Full implementation of the program will be achieved by the end of 2025. Over the past few years, the Department of Environmental Protection (DEP) has gradually introduced this service in select areas, Now, all eligible residents will receive a bilingual information postcard detailing how to schedule collection for electronics and batteries, along with instructions on how to set out materials for pick-up. The curbside battery recycling program information links were provided and are as follows:

<https://mygreenmontgomery.org/2025/montgomery-county-expands-curbside-recycling-to-include-electronics-and-household-batteries/>

<https://www.montgomerycountymd.gov/DEP/trash-recycling/recycle-at-home/service-details.html>

Subcommittee leaders provided the Commission with updates regarding the progress of the Draft Final Report. Subcommittee leaders and members stressed the importance of member participation in drafting the report as a diverse level of expertise is needed for the recommendation document. Several Commission members volunteered to participate in the Drafting/Protection work sessions which will be held following this meeting. The Drafting/Production work session team includes participation from the following Commission members: Emil Nusbaum, Kitty McIlroy, Vincent Baker, Justin Short, Chris Pilzer, Nicholas Rodricks and Marc Boolish.

The Commission members scheduled the next commission meeting which will be held on September 18, 2025 at 10:00 (In person at MFRI or virtually).

Member Chris Pilzer asked if there was any additional business the group members wished to address, and upon hearing none, the meeting was adjourned at 11:40 p.m.

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