

## ***Lithium Battery Air Safety Advisory Committee Meeting Minutes***

**November 2nd, 2023**

### **I. Call to Order**

Chairman Bob Brown called the seventh meeting of the Lithium Battery Air Safety Advisory Committee to order at 9:05 AM EDT on November 2<sup>nd</sup>. The meeting was held in Washington, DC at DOT Headquarters with virtual attendance via Microsoft Teams. Duane Pfund from PHMSA served as the Designated Federal Officer (DFO), and Richard Hill from FAA served as the Alternate Designated Federal Officer (ADFO),

### **II. Quorum**

Chairman Brown surveyed those in attendance to determine the presence of a quorum.

Twenty of the twenty-two Committee members were in attendance:

BOB BROWN, Chairman, Coalition of Airline Pilots Associations

JAMES DAVIS, AccuFleet Testing

RAJU DESAI, Apple

DOUG FERGUSON, Boeing

LINDA GABOR, Ca112Recycle

GEORGE KERCHNER, PRBA - the Rechargeable Battery Association

JENNIFER LITTENBERG, Hawaiian Airlines

TODD MACKINTOSH, General Motors

BRANDON MARTIN, Outdoor Power Equipment Institute

ROBERT McCLELLAND, UPS Airlines

DINKAR MOKADM, Association of Flight Attendants- CWA

KATHLEEN O'SHEI, Integer

MARIANNA PATTERSON, Amazon

BILL REESE, Commercial Vehicle Safety Alliance

PAUL ROGERS, International Association of Fire Fighters

STEPHANE ROSSETTI, Medtronic

SCOTT SCHWARTZ, Airline Pilots Association, Int'l

MIKE TOBIN, Alaska Airlines

VERONICA WILSON, Walmart

DAVID WROTH, Underwriters Laboratories

### **III. Opening Remarks**

Opening remarks were provided by William Quade, Deputy Associate Administrator, Office of Hazardous Materials, PHMSA, and Jodi Baker, Deputy Associate Administrator for Aviation Safety, FAA. Deputy Associate Administrator Quade noted his interest in the report outs of the Working Groups created within the Sub-Committees. He noted PHMSA's ongoing research to support development of a state of charge (SOC) detection device and the agencies continued efforts in outreach and engagement through conferences, social media, and job aids to help spread awareness and ensure compliance. Deputy Associate Administrator Baker provided an update on lithium battery air transportation incidents collected by the FAA. Additionally, Ms. Baker highlighted information resources FAA makes available to passengers and crew concerning both transporting and handling lithium batteries and devices and addressing potential fires on board an aircraft. Both speakers stressed their appreciation for the efforts of the Committee and their desire for continued collaborative work.

### **IV. Previous Meeting Minutes and Agenda Adoption**

Chairman Brown noted that the minutes from the previous meeting and the agenda for this meeting were provided to all and made available on the Committee's webpage and asked for a motion to adopt the minutes. A motion was received from Member Martin and a second from Member Wroth. In response to a request to adopt the agenda for the meeting a motion was received from Member Patterson and a second from Member Ferguson. Noting no objections to the agenda or minutes as presented, the agenda and previous meeting minutes were approved.

### **V. Highlights From Last Meeting, Membership Changes, and Continuing Beyond 2025**

Chairman Brown discussed the highlights of the last meeting of the Committee and a discussion on what progress the Committee is making. Chairman Brown highlighted two portions of the last meeting: the standing up of Working Groups and a continued desire to develop and disseminate more information in the outreach and engagement arena.

Noting that Committee member appointments expire in April of 2024 the Committee discussed members that might be retiring or otherwise unable to maintain their role on the Committee. Members McClelland and Kerchner indicated that they would be retiring in the near future and that new representatives from their organization would be proposed. Chairman Brown thanked both members for their contributions to the Committee and commitment to the safe transportation of lithium batteries. Both members have contributed greatly to the success of the Committee through leadership roles in Sub-Committees and active representation of their industries.

Chairman Brown noted that the Committee is set to expire in May of 2025 per statute and its Charter, and asked if there was a desire from Committee members to pursue an extension of the Committee from the Secretary. Various ideas were discussed including requesting an extension of the current Committee, expanding the scope of the work to include transport issues relevant to other modes, and the need for potentially amending the authorization in statute. There was agreement within the Committee on the continued need for collaboration in

the lithium battery transportation safety community and that utilizing a federal advisory committee is a useful mechanism to encourage collaborative cross sector discussions. However, there was not a consensus on the question if a request to expand the scope of the Committee to include transport concerns from other modes should be made. Comments on the topic included the need to further develop existing recommendations, issues that touch different modes and agencies (e.g., right to repair and universal waste requirements), value in having other perspectives, challenges in expanding the scope, the unique transport conditions and impacts in air transport, and possible dilution of existing work focused on air transport safety. Chairman Brown noted the desire of the Committee to continue in one form or another and suggested a letter to the Secretary of the Department of Transportation be further discussed and submitted.

## **VI. Sub-Committee Reports**

The Sub-Committee Chairs provided the Committee with an update on work undertaken by their groups since the last Committee meeting.

- a. A Data Collection & Analysis Sub-Committee update was provided by its Chair David Wroth. Mr. Wroth discussed the original recommendations of the Committee to establish an enhanced battery incident reporting system and the creation a process for forensic evaluation of lithium battery events and provided the Committee with an update of the work in these areas. Additionally, Mr. Wroth provided updated TRIP statistics and analysis for 2023 YTD data and noted the onboarding of four additional carriers in the program.

Mr. Wroth provided updates on TRIP data that covered thermal incidents, 5 year trends, incidents by billion revenue-ton-miles, incidents per 100,000 departures, and an indication that passenger incidents for 2023 were on par with 2022 while cargo incidents through Q3 had already passed the number for all of 2022.

Ms. Serita McKoy a program analyst with PHMSA gave a presentation on PHMSA incident data reported on DOT 5800.1 reports. Differences in the types of information captured between PHMSA and TRIP reporting were noted and where possible a comparison of TRIP and PHMSA incident data was presented. Mr. Wroth noted that a detailed comparison between FAA, PHMSA, and TRIP data may be useful.

- b. A presentation from Regulations and Gap Analysis Sub-Committee Member Tobin was provided. Mr. Tobin provided insight into the existing requirements for transporting mobility devices by aircraft and questioned if additional requirements or possible prohibitions on certain types of mobility devices should apply.
- c. A Supply Chain Safety and Integrity Sub-Committee update was provided by its Chair, Bob McClelland. This update discussed the Sub-Committee's review of UL's certification criteria noting no members had objections to the intent of the program. The overall view was that this type of certification should remain optional and questions were raised if airlines would accept these programs and what benefits that acceptance might provide to shippers. Mr. McClelland also indicated the Sub-Committee was discussing right



to repair laws and local laws to require specific certifications for mobility devices.

- d. Two presentations were provided by Alternate DFO Dick Hill and Dan Kessler from the FAA under the Hazard Analysis Sub-Committee. Mr. Hill provided an update on FAA's layered approach to lithium battery safety. This approach addressed prevention, intervention, mitigation, and fire detection/suppression. Mr. Hill noted several programs that could influence safety including the use of dogs to detect undeclared lithium batteries and a program to look at cost effective fire control improvements for Class E cargo compartments. Mr. Kessler provided an update on FAA testing of fire containment bags ability to contain lithium battery fires. Mr. Kessler noted differing results of bags based on the type of battery or device that was tested and that additional bags will be tested with a report being released on completion of testing.

## **VII. Working Group Updates**

The Working Group leads and invited speakers provided the Committee with an update on work undertaken by their groups since the last Committee meeting.

- a. Mr. Kessler, Doug Ferguson, and Todd Mackintosh provided presentations for the 30% state of charge (SOC) working group. Mr. Kessler presented information on a FAA study of SOC of lithium ion batteries in transportation. In the study FAA examined 124 cells from 30 different shipments to determine SOC of the batteries as offered for transport. Batteries were found to be above 30% SOC in 65% of the batteries examined. Mr. Kessler noted difficulties in determining the mode of transport utilized (e.g., air or ground) for some of the shipments due to a lack of tracking number or identifiable business addresses. Mr. Ferguson and Mr. Mackintosh provided an update of a survey to gauge understanding and compliance mechanisms for verifying SOC shipping requirements that was provided to attendees of an industry group meeting of shippers, carriers, logistic providers, trainers, etc. The survey resulted in 52 valid responses that addressed how SOC information is provided to downstream shippers, how is SOC information obtained to confirm percentages, and views on how SOC requirements could be improved. It was noted that the Working Group would continue examining the issue.
- b. Mr. Stephane Rossetti provided an update from the Medical Device Working Group. It was noted the group would like to create a framework to clearly define certain medical devices that are designed for urgently needed life-threatening and life-sustaining medical devices and discuss the ability to transport devices on passenger aircraft particularly where cargo aircraft are not available. Mr. Rossetti provided an overview of the different types of medical devices and noted that the group would examine a suggestion to have PHMSA review the current Hazardous Materials Regulations requirements as they are difficult to utilize with urgent shipments.
- c. Ms. Linda Gabor and Ms. Lesley Rohrbaugh from UL provided an update from the Education and Outreach Working Group. Ms. Gabor indicated that the group wanted to look at all of the existing touch points (e.g., awareness campaigns and insights from UL research) and come back to the next meeting with recommendations for improving outreach and engagement in lithium battery transportation safety issues. Ms. Rohrbaugh gave a presentation highlighting



UL's new Consumer Tracker Series (CTS). The CTS is a month-to-month survey of 1-2,000 U.S. adults that will research the sentiment around risk, the relevance of risk to the consumer, familiarity of risk reduction, as well as responsibility for risk mitigation. A lithium battery and thermal runaway survey was the first tracker released. This survey indicated that slightly more than half of U.S. adults are aware of the risks associated with lithium ion batteries. Sixty percent indicated that they did not consider themselves very much at risk of lithium ion batteries overheating, and one-third were familiar with ways to reduce the risk of lithium ion batteries overheating. Ms. Rohrbaugh indicated the survey would be conducted monthly for at least six months and additional updates to the Committee could be provided if desired.

#### **VIII. International Update**

DFO Duane Pfund provided an update on work at ICAO to consider potential mitigation measures for lithium batteries contained in and packed with equipment. Mr. Pfund noted that the Committee has agreed to provide U.S. stakeholder inputs on the issue. Mr. Pfund provided the background for the current work concerning SOC for batteries packed with and contained in equipment, an update on the work completed so far, and expected next steps including proposals at the next ICAO panel meeting concerning limiting batteries packed with or contained in equipment to 30% SOC when transported by air.

#### **IX. Adjournment/Closing Remarks**

Chairman Bob Brown thanked everyone for a productive meeting and particularly for their commitment to collaborative work. Chairman Brown noted that the next meeting would be in approximately six months. The meeting was adjourned at 5:02 PM EDT.

At this moment, I certify that the preceding minutes are accurate and complete to the best of my knowledge.

A handwritten signature in black ink that reads "Bob Brown". The signature is fluid and cursive, with a long horizontal stroke extending from the end of the name.

Bob Brown  
Chairman  
Lithium Battery Air Safety Advisory Committee

Date: March 2, 2024