

Lithium Battery Air Safety Advisory Committee

Meeting Minutes

September 22, 2021

I. Call to Order

Chairman Bob Brown called the fourth meeting of the Lithium Battery Air Safety Advisory Committee to order at 10:11 AM EST on September 22nd. The meeting was hosted virtually via Microsoft Teams. Serving as Designated Federal Officer (DFO), Duane Pfund from PHMSA, and as Alternate Designated Federal Officer (ADFO), Richard Hill from FAA.

II. Roll Call

Roll call was conducted by means of introductions of Committee members and staff. Eighteen of twenty Committee members were in attendance:

BOB BROWN, Chairman, Coalition of Airline Pilots Associations

JAMES DAVIS, AccuFleet Testing

RAJU DESAI, Apple

DOUG FERGUSON, Boeing

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

KATHLEEN O'SHEI, Integer

WILLIAM REESE, Commercial Vehicle Safety Alliance

PAUL ROGERS, International Association of Fire Fighters

STEPHANE ROSSETTI, Medtronic

SCOTT SCHWARTZ, Air Line Pilots Association

TIM SHEPPARD, Samsung Electronics America

MICHAEL TOBIN, Alaska Airlines

DAVID WEILERT, Viking Packing Specialist

VERONICA WILSON, Walmart

III. Opening Remarks

Opening remarks were provided by William Schoonover, Associate Administrator, Office of Hazardous Materials, PHMSA; Ben Supko, Executive Director, FAA Office of Hazardous Materials and Chairman Bob Brown. All speakers recognized the diverse backgrounds of the Committee membership and highlighted the important work to be carried out. Associate Administrator Schoonover noted the continually changing landscape concerning the use of lithium batteries in devices. He noted that the continued growth in the use of lithium batteries presents an opportunity to reduce greenhouse gases and increase energy efficiency. Executive Director Supko spoke about recently released FAA guidance on performing safety risk assessment associated with the transport of various types of items in an aircraft cargo compartment and the value of considering the inherent hazards of these items. Chairman Brown stressed the importance of working together to the benefit of safety for all and maintaining an efficient supply chain.

IV. Previous Meeting Minutes and Agenda Adoption

Chairman Brown noted the minutes from the previous 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 Tobin and a second from member Schwartz. The minutes were adopted as provided. Chairman Brown then reviewed the current meeting agenda. A motion to approve the meeting agenda was provided by member Weilert and a second from member Wilson. Noting no objections to the agenda as presented, the agenda was approved. Chairman Brown provided an update to the Committee that the initial report of the Committee had been submitted to the Department of Transportation in January of 2021.

V. Reports from Think Tanks

Each of the four Think Tank leads provided an update of the work that their group had undertaken since the last Committee meeting.

a. G-27 Think Tank

Dave Weilert, head of the G-27 Think Tank, provided the Committee with an update of the groups work noting the following observations made by the group:

1. If a G-27 packaging standard is approved and implemented into regulations it should be applicable to both lithium-ion and lithium metal batteries in passenger aircraft service.
2. Views were divided on if a G-27 package offered for transportation to a passenger aircraft should require an additional approval or simply be authorized for transportation if it meets the potential new standard.
3. The group did not believe that a G-27 packaging standard should not apply on cargo aircraft. The group believed that the existing 30% state of charge requirements have helped the situation.
4. The group did not believe that external fire protection should be mandated as a part of G-27 requirements.
5. The group noted potential future discussions within the think tank on a desired expedited approval process for G-27 packages if approval is ultimately required.

b. UN CLASSIFICATION THINK TANK

Kathy O'Shei, head of the UN Classification Think Tank, provided the Committee with an update of the groups work noting the following observations made by the group:

1. Cell and battery technology has changed and the current classification system does not differentiate between cell and battery risk. The group also noted that different emergency response actions are needed for different chemistries.
2. The group indicated that the current classifications are too broad and that regulations have not kept up with technological advances.
3. The group believes that the UN classification work should help facilitate the gathering of information that airlines need to know for their safety assessments, simplify shipping for the shipper, and ensure widespread understanding of the regulations.
4. The group recommended active participation in the UN Working Group on Hazard Based Classification of Lithium Batteries to work towards a system that allows identification and easier shipment of "safer" lithium cells and batteries.

c. Cells/Batteries Packed with or Contained in Equipment Think Tank

Brandon Martin, head of the Cells/Batteries Packed with or Contained in Equipment Think Tank, provided the Committee with an update of the groups work noting the following observations made by the group:

1. The group lacked data to make specific recommendations as to the appropriateness of changing regulations regarding lithium batteries packed with or contained in equipment.
2. The group focused work on requirements for shipping spare batteries with equipment and noted there may be potential regulatory gaps that could be exploited in comparison to stand along battery shipments.
3. The group recommended the Regulations and Gap Analysis Sub-Committee look at impacts of spare cells/batteries SOC in/with equipment and the impacts of a trusted vendor program and its ability to potentially mitigate risk in air transport of lithium cells and batteries packed with or contained in equipment.

d. Simplifying Regulations Think Tank

Veronica Wilson, head of the Simplifying Regulations Think Tank, provided the Committee with an update of the groups work noting the following observations made by the group:

1. A survey taken by 38 respondents representing airlines, battery manufacturers, retail brick & mortar/eCommerce, trade organizations, and those in the other category was discussed. The survey requested views on asking respondents for their views on areas of the regulations that may be overly complex and on reverse logistics concerns.
2. Respondents to the survey felt that lithium battery regulations were overly complex, particularly those related to Section II batteries, exemptions, reverse logistics, and applications for special permits or approvals.
3. The survey asked if Section II provisions in the ICAO Technical Instructions should be eliminated and received a 50% yes response.
4. Nearly all that responded thought that the existing regulations do not provide adequate guidance for evaluating the condition of a returned battery or device containing a battery.
5. Individual recommendations from respondents for simplifying the regulations and improving reverse logistics provisions were provided. For a summary of these

e. Section II Think Tank

Jennifer Littenberg, head of the Section II Think Tank, assisted by George Kerchner provided the Committee with an update of the groups work noting the following observations made by the group:

1. The group noted potential advantages and disadvantages of removing Section II from the ICAO Technical Instructions. Noting that removal would simplify the regulations without causing major disruptions to industry or cause significant economic loss.
2. The group noted potential alternatives to removal of Section II provisions, notably further training and notification to the pilot-in-command requirements could be an option.
3. The group concluded that removal of Section II provisions would be consistent with major US cargo airlines policies of not accepting Section II batteries, would increase visibility to operators, and supports expedited global harmonization of regulations.

VI. Reports from Sub-Committees

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

- a. A Data Collection & Analysis Sub-Committee update was provided by David Worth who gave the Committee an update on the TRIP program indicating the onboarding of 4 new members, discussions on finding a new permanent host for program, and the most recently compiled 2021 incident data. Next steps identified include continuing to advance the TRIP program through simplified reporting, adding additional participants, and a long-term strategy for the hosting of the program.
- b. A Regulations & Gap Analysis Sub-Committee update was provided by its Chair Mike Tobin. This update discussed open Congressional legislation mentioning lithium batteries, FAA Advisory Circular 120-121 providing guidance on performing risk-assessments for items in cargo compartments, and noted plans to provide actionable items for DOT to consider to improve the safe transportation of lithium batteries by air.
- c. A Supply Chain Safety and Integrity Sub-Committee update was provided by its acting Chair Bob McClelland. This update discussed the Sub-Committees continuing work to refine their lifecycle spreadsheet, identifying lifecycle activities that represent the most risk for air transportation, and setting priorities within the Sub-Committee for these targeted focus areas.
- d. Alternate DFO Richard Hill provided a presentation for the Hazard Analysis Sub-Committee on FAA Advisory Circular 120-121. This presentation gave the background for the circular, and an overview of the associated webpages that provide information on hazards, risks, and potential mitigations for various cargos carried by aircraft. Chairman Brown then presented on the risks of counterfeit batteries and availability of 18650 cells for sale for use in a manner that they were not otherwise intended.

VII. International Update

DFO Duane Pfund provided an update on proposals to be considered by the ICAO Dangerous Goods Panel (DGP/28) in November. The update addressed proposals concerning the deletion of Section II provisions, requiring a reduced state of charge for batteries contained in or packed with equipment, and a prohibition on the carriage of damaged or defective batteries.

VIII. Adjournment/Closing Remarks

Chairman Bob Brown noted that a survey would be sent out for possible meeting dates for the next meeting and adjourned the meeting at 4:09 PM EST

I hereby certify that, to the best of my knowledge, the foregoing minutes are accurate and complete.

A handwritten signature in cursive script that reads "Bob Brown". The signature is fluid and extends to the right with a long, sweeping tail.

Bob Brown
Chairman
Lithium Battery Air Safety Advisory Committee

Date: January xx, 2022