

Lithium Battery Air Safety Advisory Committee

Meeting Minutes

January 22, 2020

I. Call to Order

Chairman Bob Brown called to order the first meeting of the Lithium Battery Air Safety Advisory Committee at 9:19 AM on January 22nd in the George C. Fields Conference Center, 1200 New Jersey Avenue, SE, Washington, D.C.

II. Roll Call

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

BOB BROWN, Chairman, Coalition of Airline Pilots Associations

J. THOMAS CHAPIN, Underwriters Laboratories

JAMES DAVIS, AccuFleet Testing

RAJU DESAI, Apple

DOUG FERGUSON, Boeing

GEORGE KERCHNER, PRBA - the Rechargeable Battery Association

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

PHILIP SQUAIR, National Electrical Manufacturers

Association

MICHAEL TOBIN, Alaska Airlines

DAVID WEILERT, Viking Packing Specialist

VERONICA WILSON, Walmart

BILL WOJTAS, United Airlines

III. Opening Remarks

Opening remarks were provided by Drue Pearce, Deputy Administrator, PHMSA and Chairman Brown. Both recognized the diverse backgrounds of the Committee membership and highlighted the important work expected to be carried out.

IV. Agenda Adoption

Chairman Brown reviewed the meeting agenda. Noting no objections to the agenda as presented, the agenda was approved.

V. Committee Business

- a. Paul Roberti, Chief Counsel, PHMSA provided an overview of the Federal Advisory Committee Act (FACA) requirements and PHMSA legal resources available to the Committee. In response to a question about the use of non-committee members in any sub-committees that may be stood up by the Committee, Mr. Roberti noted that sub-committees may use outside experts during their work, and that it may be advisable to have these resources present information to the Committee as a panel.
- b. Designated Federal Official (DFO) Pfund provided an overview of Committee roles and the Federal Aviation Administration Reauthorization Act requirements applicable to lithium battery transportation. This overview included a discussion on Committee composition, duties expected to be carried out by the Committee, reporting requirements, and expected frequency of meetings.
- c. DFO Pfund reviewed the Charter for the Committee which has been duly filed on May 9, 2019 with the General Services Administration as required by the FACA. The current charter will expire May 9, 2021, unless renewed.
- d. Chairman Brown introduced and reviewed draft by-laws for the Committee. It was noted that appointment to the Committee is tied to the individual but also their role at the company or organization. If a member changes

companies or materially changes their role within their current company or organization this would need to be communicated to the DFO in writing, and a determination of continued eligibility to serve will be made at that time. Noting that the draft by-laws state that in the absence of consensus a majority vote of Committee members is required for a decision or recommendation of the Committee, a question arose as to what happens in the case of a tie vote. A motion to give the Chairman a tie breaking vote in this case was provided by Committee member Weilert. The motion was put to a vote resulting in a ten to ten tie and the motion did not carry. It was determined that the existing by-law requirement for a majority is an acceptable path forward for making final Committee determinations when consensus cannot be achieved. The draft by-laws were adopted as presented.

VI. Mandate Duties & Identifying Risks in the Transportation System

- a. The Committee began discussions on identifying risks in the transportation system related to the transportation of lithium batteries. Four Committee members requested to present information through PowerPoint presentations. Presentations presented were as follows.
 - (1) A presentation on lithium battery transportation regulatory change, both internationally and domestically, over the last 11 years by member Kerchner.
 - (2) A presentation outlining the number, types of batteries or devices, and location of lithium battery related thermal runaway events observed by domestic passenger air providers in passenger carry-on, checked baggage, and cargo by member Wojtas.
 - (3) A presentation about work to develop the Thermal Runaway Incident Program (TRIP) initiated by domestic air carriers with technical support provided by Underwriters Laboratory to collect and analyze data on lithium battery thermal events in the aviation sector by Chairman Brown.
 - (4) A presentation on the examination of battery supply chain, including basic battery chemistry, and compliance and failure mechanisms was provided by member Chapin.

VII. Adjournment

Chairman Bob Brown adjourned the meeting for the day at 4:59 PM.

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VIII. Call to Order

Chairman Bob Brown called to order the second day of the first meeting of the Lithium Battery Air Safety Advisory Committee at 9:02 AM on January 23rd in the George C. Fields Conference Center, 1200 New Jersey Avenue, SE, Washington, D.C.

IX. Roll Call

All Committee members were in attendance:

BOB BROWN, Chairman, Coalition of Airline Pilots Associations

J. THOMAS CHAPIN, Underwriters Laboratories

JAMES DAVIS, AccuFleet Testing

RAJU DESAI, Apple

DOUG FERGUSON, Boeing

GEORGE KERCHNER, PRBA - the Rechargeable Battery Association

TODD MACKINTOSH, General Motors

BRANDON MARTIN, Outdoor Power Equipment Institute

ROBERT McCLELLAND, UPS Airlines

KATHLEEN O'SHEI, Integer

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TIM SHEPPARD, Samsung Electronics America

PHILIP SQUAIR, National Electrical Manufacturers
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MICHAEL TOBIN, Alaska Airlines

DAVID WEILERT, Viking Packing Specialist

VERONICA WILSON, Walmart

BILL WOJTAS, United Airlines

X. Opening Remarks

Chairman Brown provided opening remarks summarizing the work done during day one and outlining the agenda for the second day of the meeting. Josh Holtzman, Acting Deputy Associate Administrator for Security and Hazmat Safety, FAA spoke and expressed the FAA's focus on lithium battery safety remains one of the highest priorities for the agency.

XI. Mandate Duties & Identifying Risks in the Transportation System

- a) A presentation on activities carried out by one members company to ensure quality management and ultimately safe batteries are produced by his company. The presentation was given by member Sheppard.
- b) A comment received via e-mail from Vincent Desiderio, with the U.S. Postal Service (USPS) was read for the Committee. Mr. Desiderio's comment noted that many lithium battery related transportation incidents he is aware of were the result of improperly prepared batteries being sent as part of ecommerce-related transactions. He further asked what responsibilities the platform has in educating their vendors on these hazards and ensuring that materials sent through their facilitated transactions are entering the transportation system in a safe and proper fashion. Lastly, he noted he would be glad to provide examples of incidents involving lithium batteries that USPS has encountered.

XII. Potential Approaches to Address Mandate Duties and Identified Risks in the Transportation System

- a) The Committee discussed general topic areas of concern related to risks in the transportation system associated with lithium cells and batteries. Ideas and topic areas for further discussion were documented on large easel paper by member Chapin.
- b) Once these general topic areas were documented the Committee placed them into four groups. The four groups and associated topic areas were:
 - 1) Data Collection and Analysis
 - i. Needed information

- ii. Review of current state (INFOSHARE, HAZMATICS)
- iii. Differentiation between regulatory and voluntary
- iv. Terms and definitions /guidance
- v. Scope
- vi. Capture of related information
- vii. Impact on operations / emergency response
- viii. Item identification / history
- ix. Root cause analysis / forensic analysis
- x. Disposal / disposition
- xi. CPSC information
- xii. Goals, objectives, intent
- xiii. Who, what, when where, why, how
- xiv. Undeclared / misdeclared
- xv. Social media / data mining feeds
- xvi. Cross subcommittee interactions

2) Supply Chain Safety and Integrity

- i. Best practices
- ii. Current regulatory requirements
- iii. Additional requirements / methods
- iv. Counterfeit detection / trade negotiations (SAG activities, SAG 21 SAE 7492 21B)
- v. Enforcement and oversight
- vi. Training and education (current + needs)
- vii. Systems approach and design
- viii. Data input, processes, analytics
- ix. Reverse logistics
- x. Trade and commerce
- xi. Scope and architecture of database
- xii. SMS, Risk Analysis

3) Regulations and Gap Analysis

- i. Current state
- ii. Enforcement
- iii. Education and outreach (current vs need)
- iv. Gaps – International / national
- v. Modes
- vi. USPS
- vii. Training
- viii. Role of product safety standards voluntary compliance

- ix. Harmonization of approaches
- x. FAA
- xi. TSA
- xii. CBP
- xiii. Cargo vs baggage, checked baggage
- xiv. Undeclared, misdeclared
- xv. Implementation

4) Hazard Review

- i. Mitigations onboard aircraft:
 - Layered approach (battery, package, container, aircraft)
 - ii. Emergency procedures for high risk cases
 - iii. Differentiation of aircraft compartments (cargo, passenger, different locations/compartments): Hazards analysis by location and types
- c) The Committee agreed to create four sub-committees through consensus, subject to applicable PHMSA approval, for each of the groups indicated above. Volunteers to chair and serve on the sub-committees were solicited. Sub-committee chairman and membership is indicated in the table below.

Sub-Committee	Chairman	Members								
Data Collection and Analysis	Bob McClelland (UPS Airlines)	Bill Wojtas (United Airlines)	Scott Schwartz (Air Line Pilots Association, Int'l)	Stephane Rossetti (Medtronic)	Paul Rogers (International Association of Fire Fighters)	Kathy O'Shei (Integer Holdings)	George Kerchner (PRBA)	Raju Desai (Apple Inc.)	Tom Chapin (Underwriters Laboratories)	
Supply chain Safety and Integrity	Tom Chapin (Underwriters Laboratories)	Veronica Wilson (Walmart Inc.)	Phil Squair (NEMA)	Tim Sheppard (Samsung)	Todd Mackintosh (General Motors)	Stephane Rossetti (Medtronic)				
Regulations and Gap Analysis	Bill Wojtas (United Airlines)	Dave Weilert (Viking Packing Specialist)	Mike Tobin (Alaska Airlines)	Scott Schwartz (Air Line Pilots Association, Int'l)	Bill Reese (CVSA)	George Kerchner (PRBA)	Doug Ferguson (Boeing)	Raju Desai (Apple Inc.)	Jim Davis (AccuFleet Testing)	Brandon Martin (Outdoor Power Equipment Institute)
Hazard Review	Bob Brown (Coalition of Airline Pilots Associations)	All Committee Members								

XIII. Committee Business

- a) A presentation on education and outreach efforts undertaken by his association was presented by member Kerchner.
- b) The Committee discussed the idea of submitting a letter to Department of Transportation Secretary Chao to engage U.S. trade representatives involved in

existing trade talks with the Peoples Republic of China to seek a reduction in the manufacturing and transportation of counterfeit batteries. Chairman Brown and member Weilert agreed to work to draft a letter for possible submission to Secretary Chao from the Committee.

- c) The Committee discussed dates for the next meeting of the Committee. September 8-9, 2020 and September 15-16, 2020 were provided as options. Based on potential member availability during these timeframes the Committee tentatively selected September 15-16, 2020 for the next meeting of the Committee, subject to required Department of Transportation approval.
- d) Committee DFO Hill volunteered to host a tour of the FAA Technical Center in Atlantic City to demonstrate various lithium battery testing procedures and to allow Committee members to examine aircraft cargo compartments and fire suppression systems. In conjunction with this tour the four established sub-committees will all hold meetings. The dates for this tour and meetings of the sub-committees will be February 25-26.

XIV. Adjournment

Chairman Bob Brown adjourned the meeting at 3:15 PM.

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



Bob Brown
Chairman
Lithium Battery Air Safety Advisory Committee