National Transportation Safety Board



Washington, D.C. 20594

2 6 2012

The Honorable Cynthia L. Quarterman Administrator Pipeline and Hazardous Materials Safety Administration Washington, DC 20590

Dear Administrator Quarterman:

Thank you for your June 6, 2012, letter to the National Transportation Safety Board (NTSB) regarding Safety Recommendations A-07-104, -105, and -107 through -109, stated below. The NTSB issued these recommendations to the Pipeline and Hazardous Materials Safety Administration (PHMSA) on December 17, 2007, as a result of (1) our investigation of the February 7, 2006, in-flight cargo smoke indication and the subsequent fire after landing of United Parcel Service flight 1307, a McDonnell-Douglas DC-8-71F, at Philadelphia International Airport, Philadelphia, Pennsylvania, and (2) our concerns about the increasing number of incidents documented by the Federal Aviation Administration (FAA) involving overheating and fires initiated by secondary (rechargeable) lithium batteries.

A-07-104

Require aircraft operators to implement measures to reduce the risk of primary lithium batteries becoming involved in fires on cargo-only aircraft, such as transporting such batteries in fire-resistant containers and/or in restricted quantities at any single location on the aircraft.

A-07-105

Until fire suppression systems are required on cargo-only aircraft, as indicated in Safety Recommendation A-07-99, require that cargo shipments of secondary batteries including those contained in or packed with equipment be transported in crew-accessible locations where portable fire suppression systems can be used.

The NTSB is aware that, on February 14, 2012, Congress enacted the FAA Act, which restricts PHMSA's authority to issue any regulations more stringent than the requirements of the International Civil Aviation Organization (ICAO) technical instructions regarding the "Safe Transport of Dangerous Goods by Air." PHMSA indicated that, beyond bringing the Hazardous Materials Regulations (HMR) into line with the ICAO technical instructions, it cannot take any additional action in response to these recommendations. We remain concerned that the risk of primary lithium batteries becoming involved in fires on board cargo-only aircraft has not been mitigated. However, we recognize that PHMSA is unable at this time to implement the

recommended actions. Accordingly, Safety Recommendations A-07-104 and -105 are classified "Closed—Reconsidered."

<u>A-07-107</u>

Require commercial cargo and passenger operators to report all incidents involving primary and secondary lithium batteries, including those contained in or packed with equipment, that occur either on board or during loading or unloading operations and retain the failed items for evaluation purposes.

As we stated previously, we believe that the HMR requirement for the reporting, to PHMSA, of transportation incidents involving lithium batteries partially satisfies Safety Recommendation A-07-107. However, we remain concerned that PHMSA has implemented no requirement for the shipper, carrier, or any other person in possession of a failed lithium battery at the time of an incident to retain that battery for evaluation. We note, however, that most operators retain failed batteries to assist government agencies and that shippers are now conducting their own analyses of these items and are sharing their findings with PHMSA. We also note that, through its special investigation process, PHMSA obtains specific information regarding the material being shipped and the condition of the package or article involved in an incident. These actions are responsive to the second part of this recommendation and may prove to be an acceptable alternate solution to the problem. However, we request additional information regarding the criteria used by PHMSA for determining whether a failed battery should be retained. Pending our receipt and review of this information, Safety Recommendation A-07-107 is classified "Open—Acceptable Alternate Response."

A-07-108

Analyze the causes of all thermal failures and fires involving secondary and primary lithium batteries and, based on this analysis, take appropriate action to mitigate any risks determined to be posed by transporting lithium batteries, including those contained in or packed with equipment, on board cargo and passenger aircraft as cargo; checked baggage; or carry-on items.

A-07-109

Eliminate regulatory exemptions for the packaging, marking, and labeling of cargo shipments of small secondary lithium batteries (no more than 8 grams equivalent lithium content) until the analysis of the failures and the implementation of risk-based requirements asked for in Safety Recommendation A-07-108 are completed.

PHMSA indicated that it is currently evaluating the 2013–2014 ICAO technical instructions to determine whether the instructions address either of these recommendations. The NTSB is aware that the 2013–2014 ICAO technical instructions would include (1) a restriction on exemptions from full regulation under Class 9 for small quantities and small packages, (2) new language in the packing instructions to bring some small shipments of

Li metal and Li ion cells and batteries under Class 9, but also to provide some relief from full Class 9 requirements that apply to bulk shipments, and (3) a net-weight limit per package for batteries packed with, or contained in, equipment. We believe that these revisions are responsive to these recommendations and, if included in the HMRs, would constitute an acceptable alternate solution to the problem. Accordingly, pending our receipt and review of the revised HMRs, Safety Recommendations A-07-108 and -109 are classified "Open—Acceptable Alternate Response."

We encourage you to submit updates regarding progress to address Safety Recommendations A-07-107 through -109 electronically at the following e-mail address: correspondence@ntsb.gov. If a response, including attachments, exceeds 10 megabytes, please e-mail us at the same address for instructions. To avoid confusion, please do not submit both an electronic copy and a hard copy of the same response.

Sincerely,

Deborah A.P. Hersman

Chairman

cc: Ms. Camille Mittelholtz, Acting Director Office of Safety, Energy, and Environment Office of Transportation Policy