



# National Transportation Safety Board

Washington, D.C. 20594

Office of the Chairman

JUN 13 2001

Ms. Elaine E. Joost  
Acting Deputy Administrator  
Research and Special Programs Administration  
Washington, D.C. 20590

Dear Ms. Joost:

Thank you for the Research and Special Programs Administration's (RSPA) October 24, 2000, response to the National Transportation Safety Board's Safety Recommendations A-99-80 through -84, stated below. These recommendations were issued to RSPA as a result of the Safety Board's investigation of an April 28, 1999, fire in the Northwest Airlines cargo facility at Los Angeles International Airport (LAX), in Los Angeles, California.

## A-99-80

With the Federal Aviation Administration, evaluate the fire hazards posed by lithium batteries in an air transportation environment and require that appropriate safety measures be taken to protect aircraft and occupants. The evaluation should consider the testing requirements for lithium batteries in the United Nations *Transport of Dangerous Goods Manual of Tests and Criteria*, the involvement of packages containing large quantities of tightly packed batteries in a cargo compartment fire, and the possible exposure of batteries to rough handling in an air transportation environment, including being crushed or abraded open.

## A-99-81

Pending completion of your evaluation of the fire hazards posed by lithium batteries in an air transportation environment, prohibit the transportation of lithium batteries on passenger-carrying aircraft.

## A-99-82

Require that packages containing lithium batteries be identified as hazardous materials, including appropriate marking and labeling of the packages and proper identification in shipping documents, when transported on aircraft.

## A-99-83

Pending completion of your evaluation of the fire hazards posed by lithium batteries in an air transportation environment, notify the International Civil Aviation Organization's Dangerous Goods Panel about the circumstances of the fire in the Northwest Airlines cargo facility at Los Angeles International Airport on



April 28, 1999. Also pending completion of your evaluation of the fire hazards posed by lithium batteries in an air transportation environment, initiate action through the Dangerous Goods Panel to revise the Technical Instructions for the *Safe Transportation of Dangerous Goods by Air* to prohibit the transportation of lithium batteries on passenger-carrying aircraft.

A-99-84

Initiate action through the Dangerous Goods Panel to revise the *Technical Instructions for the Safe Transportation of Dangerous Goods by Air* to require that packages containing lithium batteries be identified as hazardous materials when transported on aircraft.

On September 7, 2000, RSPA published an Advisory Notice in 65 *Federal Register* 174 that did the following:

- 1) Provided information about the incident and the potential hazards that shipments of lithium batteries may present while in transportation,
- 2) Recommended actions to offerors and transporters to ensure the safety of such shipments,
- 3) Provided information concerning the current requirements for the transportation of lithium batteries,
- 4) Provided information concerning these safety recommendations on the transportation of lithium batteries and RSPA's response to the recommendations,
- 5) Provided information about the actions RSPA has taken and plans to take in the future to address the hazards of these batteries, and
- 6) Provided information concerning initiatives being taken by members of the battery manufacturing and distribution industry to address concerns relating to transportation of these batteries.

RSPA provided the Safety Board with a copy of this Advisory Notice.

The Safety Board notes that although publishing the Advisory Notice is a commendable activity, it does not address the intent of these recommendations. The Board's June 27, 2000, response to RSPA's March 29, 2000, letter about these recommendations discussed the specific actions necessary to satisfy Safety Recommendations A-99-80, -82, and -83. In its March 29, 2000, letter, RSPA informed the Board that in coordination with the FAA, it is re-evaluating the hazards posed by lithium batteries in air transport and the safety measures necessary to protect an aircraft and its occupants, including an evaluation of the current testing requirements of the United Nations' *Transport of Dangerous Goods Manual of Tests and Criteria* and current regulatory requirements. Pending the results of RSPA's evaluation of the hazards and safety measures necessary for lithium battery shipment in air transport, including damage from rough handling such as being crushed or abraded open, Safety Recommendation A-99-80, remains classified "Open—Acceptable Response." Pending the results of RSPA's evaluation being conducted in response to Safety Recommendation A-99-80 and the initiation of rulemaking, Safety Recommendation A-99-82 remains classified "Open—Acceptable Response." Pending revision by the Dangerous Goods Panel to the *Technical Instructions for the Safe Transportation of Dangerous Goods by Air* to require that packages containing lithium batteries be

identified as hazardous materials when transported on aircraft, Safety Recommendation A-99-84 remains classified "Open—Acceptable Response."

In its March 29, 2000, letter to the Safety Board, RSPA stated that it could not justify an immediate prohibition on the transportation of lithium batteries on passenger-carrying aircraft, nor could it justify the immediate imposition of a requirement to mark and label packages containing lithium batteries. In its June 27, 2000, response to RSPA, the Board stated that it was disappointed with RSPA's response and that the possibility of an in-flight fire caused by damaged lithium batteries is unacceptable. Because of the circumstances of the LAX incident, the evidence cited in the safety recommendation letter that aircraft pallets containing large quantities of batteries may be unusually susceptible to overturning, and the concern that lithium batteries damaged during handling and placed in a cargo compartment may result in an in-flight fire, the Board continues to believe that lithium batteries should not be transported by passenger-carrying aircraft. RSPA has not responded to the concerns expressed in the Board's June 27, 2000, letter, nor has it indicated that it is taking action in response to Safety Recommendation A-99-81. Therefore, Safety Recommendation A-99-81 is classified "Closed—Unacceptable Action."

The Safety Board notes that in the *Federal Register* Advisory Notice, RSPA states on page 54338 that it notified the International Civil Aviation Organization (ICAO) Dangerous Goods Panel of the accident that prompted these recommendations and initiated proposals to the United Nations' Recommendations on the Transportation of Dangerous Goods (UN Recommendations). However, RSPA does not state what they have proposed to the UN Recommendations. Further, because RSPA has stated that it cannot justify an immediate prohibition on the transportation of lithium batteries on passenger-carrying aircraft, the Board is concerned that RSPA's proposals are not responsive to Safety Recommendation A-99-83. Pending revision to the *Technical Instructions for the Safe Transportation of Dangerous Goods by Air* to prohibit the transportation of lithium batteries on passenger-carrying aircraft, Safety Recommendation A-99-83 is classified "Open—Unacceptable Response." If RSPA takes the recommended action to prohibit the transportation of lithium batteries on passenger-carrying aircraft and notifies the Safety Board of its action, the Board will consider reclassifying Safety Recommendations A-99-81 and -83.

Sincerely,



Carol J. Carmody  
Acting Chairman

cc: Mr. Robert Clarke, Safety and Health Team Leader  
Office of Transportation Policy Development