DEPARTMENT OF TRANSPORTATION

Research and Special Programs Administration

49 CFR Parts 171, 172, 173 and 175

[Docket No. RSPA–04–19886 (HM–224E]

RIN 2137–AE05

Hazardous Materials; Prohibition on the Transportation of Primary Lithium Batteries and Cells Aboard Passenger Aircraft

AGENCY: Research and Special Programs Administration (RSPA), DOT.

ACTION: Interim final rule.

SUMMARY: To protect life and property, RSPA (we), working closely with the Federal Aviation Administration (FAA), is issuing an interim final rule imposing a limited prohibition on offering for transportation and transportation of primary (non-rechargeable) lithium batteries and cells as cargo aboard passenger-carrying aircraft and equipment containing or packed with large primary lithium batteries. This rule applies to both foreign and domestic passenger-carrying aircraft entering, leaving, or operating in the United States and to persons offering primary lithium batteries and cells for transportation as cargo on any passenger-carrying aircraft. This prohibition does not affect the carriage of lithium batteries or devices containing lithium batteries that are transported in a passenger's luggage for personal use. In addition, this rule does not apply to the shipment of equipment that contains or is packed with small primary lithium batteries or to the shipment of secondary (rechargeable) lithium batteries (*e.g.*, lithium ion batteries). RSPA is also amending the Hazardous Materials Regulations to require that, when offered for transport as cargo, shipments of primary lithium batteries and cells that are excepted from classification as a Class 9 (miscellaneous) hazardous material must be marked to indicate that they are forbidden for transport aboard passenger-carrying aircraft. Because this interim final rule addresses an immediate public safety risk, it is impracticable and contrary to the public interest to precede it with a notice of proposed rulemaking and an opportunity for public comment. RSPA and FAA also plan on holding a public meeting on this rulemaking before the end of the comment period. The details of the public meeting, including time and location, will be set forth in a future **Federal Register** notice.

DATES: Effective Date: The effective date of these amendments is December 29, 2004.

Comments: Comments must be received by February 14, 2005.

ADDRESSES: You may submit comments [identified by DOT DMS Docket Number RSPA–04–19886 (HM–224E)] by any of the following methods:

- *Web Site: http://dms.dot.gov.* Follow the instructions for submitting comments on the DOT electronic docket site.
- *Fax:* 202–493–2251.
- *Mail:* Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, PL–401, Washington, DC 20590–0001.
- *Hand Delivery:* Room PL–401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.
- Federal eRulemaking Portal: Go to *http://www.regulations.gov.* Follow the online instructions for submitting comments.

Instructions: You must include the agency name (Research and Special Programs Administration and Docket number (RSPA–04–19886 (HM–224E) or the Regulatory Identification Number (RIN) for this rulemaking at the beginning of your comments. You should submit two copies of your comments if you submit them by mail. If you wish to receive confirmation that RSPA received your comments, you must include a self-addressed stamped postcard. Note that all comments received will be posted, without change, to *http://dms.dot.gov* including any personal information provided and will be available to internet users. Please see the Privacy Act section of this document.

Docket: For access to the docket to read background documents and comments received, go to *http://dms.dot.gov* at any time or to Room PL–401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: John A. Gale, Office of Hazardous Materials Standards, RSPA, Department of Transportation, 400 Seventh Street, SW., Washington, DC 20590–0001, Telephone (202) 366–8553.

SUPPLEMENTARY INFORMATION: This interim final rule prohibits primary lithium battery cargo shipments on passenger carrying aircraft because they are an immediate threat to the flying public. FAA and RSPA identified this category of cargo shipments by assessing recent lithium battery fires in air transportation and considering a recently released FAA technical report evaluating the flammability of primary lithium batteries and the effect of air carrier fire suppression systems on primary lithium battery fires. At this time we are not prohibiting the shipment of secondary (rechargeable) lithium batteries or those electronic devices (*e.g.*, laptop computer, cells) that contain or are packed with small lithium batteries, and passengers may continue to bring personal electronic devices on-board either in carry-on or checked baggage. RSPA is continuing to evaluate the risks posed by rechargeable lithium batteries, as well as all lithium batteries on-board aircraft, either separately or as part of equipment, and we seek comment on ways to mitigate these risks and the costs of doing so.

I. Background

Federal hazardous materials transportation law (49 U.S.C. 5101 *et seq.*) directs the Secretary of Transportation to establish regulations for the safe and secure transportation of hazardous materials in commerce. Regulations prescribed in accordance with Federal hazardous materials transportation law govern safety aspects, including security, of the transportation of hazardous materials that the Secretary considers appropriate. In 49 CFR 1.53, the Secretary delegated authority to issue regulations for the safe and secure transportation of hazardous materials in commerce to the Research and Special Programs Administrator. The Administrator issues the Hazardous Materials Regulations (HMR; 49 CFR Parts 171 through 180) under that delegated authority. The authority for enforcement of the HMR is shared by RSPA, FAA, the United States Coast Guard, Federal Motor Carrier Safety Administration, and Federal Railroad Administration. FAA has primary enforcement authority concerning transportation and shipments of hazardous materials by air. 49 CFR 1.47(k).

II. Regulation of Lithium Batteries and Cells Under the HMR

Battery manufacturers use lithium in batteries due to its favorable chemical properties. Lithium batteries are used to power both portable and non-portable products. The market for portable, battery-powered products is diverse and growing, encompassing a variety of electronic computer, communications, and entertainment products; a variety of cordless tools; and whole new classes of military and medical products. This diversity has resulted from a unique

synergy between the products themselves, the batteries they use, and the battery charger and power management systems that charge the batteries. Primary (non-rechargeable) lithium batteries are used in a variety of products, such as cameras, memory backup circuits, security devices, calculators, and watches. Secondary (rechargeable) lithium batteries are used in camcorders, cell phones, and other portable electronics.

Under the HMR, lithium batteries and cells and equipment containing or packed with lithium batteries are regulated as Class 9, Miscellaneous Hazardous Materials. In accordance with § 173.185(e) of the HMR, lithium batteries and cells must be tested in accordance with the UN Manual of Tests and Criteria; equipped with an effective means of preventing short circuits; packaged in Packing Group II performance level packagings; and identified on shipping papers and with package markings and labels. However, materials in Class 9 are not subject to the aircraft cargo compartment limits in § 175.75; therefore, there is no limit on the number of lithium batteries and cells that may be loaded in an aircraft cargo compartment. Prior to 1995, lithium batteries and cells that were not otherwise excepted from the HMR were forbidden for transportation aboard passenger carrying aircraft unless such transportation was approved by the Associate Administrator for Hazardous Materials Safety. See 49 CFR 173.185(a) (Oct. 1, 1994 ed.) and RSPA's Dec. 29, 1994 final rule in Docket No. HM–215A (59 FR 67390, 67509).

Section 173.185 provides exceptions from the packaging and hazard communication requirements in the HMR for smaller primary lithium batteries [1] and cells. When the lithium content of the battery or cell does not exceed certain limits, the batteries and cells must be packaged in strong outer packagings and in a manner to protect against short circuit; however, such shipments are excepted from all other HMR requirements.

III. Safety Concerns Associated with the Transport of Lithium Batteries and Cells by Aircraft

A. Incident at Los Angeles International Airport and NTSB Recommendations

On April 28, 1999, at Los Angeles International Airport (LAX) a shipment of two pallets of primary lithium batteries that were excepted from the HMR caught fire and burned after being off-loaded from a passenger-carrying Northwest Airlines flight from Osaka, Japan. The packages and batteries were damaged while the pallets were being handled by cargo handling personnel. The damage resulting from the cargo transfer is believed to have initiated a fire. The fire was initially fought by Northwest employees with portable fire extinguishers and a fire hose. Each time the fire appeared to be extinguished, it flared up again. The two pallets involved in the fire contained 120,000 primary lithium batteries. Under the exceptions in § 173.185(b), these batteries were not required to be tested in accordance with UN Manual of Tests and Criteria; the shipment was excepted from hazard communication requirements (*i.e.*, marking, labeling and shipping papers); and the packages were not required to meet the packaging design and performance testing requirements.

As a result of this incident, the National Transportation Safety Board (NTSB) issued five safety recommendations (a copy of the NTSB letter is in the public docket) to RSPA concerning the transportation of lithium batteries, as follows:

Recommendation 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 airplane 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.

Recommendation A–99–81. Pending completion of an evaluation of the fire hazards posed by lithium batteries in an air transportation environment, prohibit the transportation of lithium batteries on passenger-carrying aircraft.

Recommendation 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.

Recommendation A–99–83. Pending completion of an 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 an 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.

Recommendation 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.

In a letter dated March 29, 2000, responding to the NTSB recommendations, we informed NTSB that, in coordination with FAA, we would initiate a study to assess the hazards associated with the transportation of lithium batteries and cells on board aircraft and to recommend enhanced safety measures if found to be necessary. We also sought additional information from lithium battery manufacturers and Federal agencies with extensive experience with testing and the use of lithium batteries and cells. Finally, as we informed NTSB, we planned to conduct experimental evaluations necessary to obtain information not available from other sources for both primary and rechargeable lithium batteries and cells.

In our response to NTSB, we also stated we could not at that time justify an immediate prohibition on the transportation of lithium batteries on passenger-carrying aircraft, but that we would initiate alternative interim actions to address the risk lithium batteries present in transportation. These alternative actions included developing and distributing information aimed at shippers and airline personnel on the potential hazards of lithium batteries and amendments to both the international and domestic regulations. In addition, we committed to initiate additional rulemaking actions as necessary, based on the findings of our evaluation, to address the hazards of lithium batteries in transportation.

On July 7, 1999, RSPA published a public advisory to remind persons that batteries and electrical devices that contain batteries are forbidden for transport unless properly packaged to prevent the likelihood of creating sparks or generating dangerous heat (64 FR 36743). The FAA also published advisories to the airline industry on July 2, 1999, and again on May 23, 2002.

On April 2, 2002, RSPA published a notice of proposed rulemaking (NPRM; 67 FR 15510) to amend the HMR to: (1) Change the test methods for lithium batteries and cells; (2) revise the exceptions for small batteries and cells (*e.g.*, those of 1 gram or less of lithium content) including adding a requirement that all such batteries and cells be subject to new marking and paper work

[1] "Smaller" primary lithium battery is a battery that effectively has an aggregate lithium content of less 25 grans when fully charged.

requirements and to the test methods for lithium batteries and cells; (3) eliminate the exception for larger batteries and cells (*e.g.*, cells up to 5 grams of lithium content and batteries up to 25 grams of lithium content); and (4) provide an exception for aircraft passengers and crew. The proposals in the NPRM are consistent with amendments that have already been adopted into the UN Recommendations on the Transport of Dangerous Goods and the International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air.

B. FAA Technical Report on Primary Lithium Batteries

As part of DOT's re-evaluation of the hazards posed by lithium batteries in air transportation, FAA initiated a series of tests to assess the flammability characteristics of primary lithium batteries and published a technical report in June 2004 (DOT/FAA/AR/–04/26). This report, which can be found in the docket for this rulemaking, concluded that the presence of a shipment of primary lithium batteries can significantly increase the severity of an in-flight cargo compartment fire. More importantly, the report concluded that primary lithium batteries pose a unique threat in the cargo compartment of an aircraft because primary lithium fires cannot be suppressed by means of Halon 1301, the only FAA certified fire suppressant system permitted for use in cargo compartments of a passenger-carrying aircraft operating in the United States.

The FAA report describes tests conducted by the FAA Fire Safety Branch to assess the potential danger posed to passenger and cargo aircraft by fires involving shipments of bulk-packed primary lithium batteries. The report notes that primary lithium batteries shipped as cargo are packed in bulk-corrugated cardboard containers, stacked on pallets, and shipped in the cargo holds of passenger and cargo aircraft. More than 30,000 batteries may be shipped on a single pallet. The packaging permits close contact between individual batteries in each row with only thin cardboard separating the rows.

The report concludes that once a primary lithium battery begins to burn, the outer plastic coating of the battery easily melts and ignites, contributing to the fire intensity. This increased intensity helps raise the temperature of the surrounding batteries to the self-ignition temperature of lithium, 352 °F. Once the lithium in a single battery begins to burn, it releases enough energy to ignite adjacent batteries. This propagation continues until all batteries have been consumed.

Once ignited, primary lithium battery fires are difficult to combat. This is because lithium is highly reactive and has a relatively low self-ignition temperature. Thus, while Halon 1301 is effective in suppressing a fire associated with the surrounding packing material, it is not effective against the burning lithium batteries. Likewise, Halon 1301 may successfully suppress a fire that starts in the cargo compartment that is unrelated to lithium batteries. However, the air temperature in a cargo compartment may still be above the self-ignition temperature of lithium batteries. Because of this, lithium batteries that are not involved in the initial fire may still ignite and propagate.

The report concludes that the ignition of a primary lithium battery releases burning electrolytes and a molten lithium spray. The cargo liner material used to insulate cargo may be vulnerable to perforation by molten lithium depending on its thickness. If perforated, the cargo liner cannot prevent the Halon 1301 fire suppressant agent from leaking out of the compartment, reducing the agent concentration within the cargo compartment and, thus, the effectiveness of the agent. Additionally, holes in the cargo liner may allow flames to spread outside of the cargo compartment, spreading the fire to other portions of the aircraft.

Similarly, the report concludes that the ignition of primary lithium batteries create a pressure pulse that can raise the air pressure within the cargo compartment. Cargo compartments are only designed to withstand approximately a 1-psi pressure differential. Greater pressure differentials may compromise the integrity of the compartment by activating pressure relief panels. The study found that ignition of only a few batteries was sufficient to increase the air pressure by more than 1-psi in an airtight 10 meter cubed pressure vessel. This increase in pressure has the same effect as perforations in the cargo liner, allowing the Halon 1301 fire suppressant to leak out, reducing its effectiveness, and allowing the fire to spread beyond the cargo compartment.

C. Additional Incidents Continue to Occur

Since 1999, there have been several incidents involving lithium batteries in air transportation. At least four of those incidents involved primary lithium battery fires; one incident required medical treatment for two workers. All of these fires were discovered either just before or just after lithium batteries were transported on an aircraft in a cargo compartment. One of the more significant incidents is described below.

In April of 2002, airport personnel at the Indianapolis International Airport discovered a fire involving lithium batteries that had just arrived on a flight from Morgan Hill, California. The batteries had short-circuited inside their packaging. Airport personnel noticed the smoke coming from the container and isolated and extinguished the fire before it spread. Had the fire ignited sooner or had the flight been delayed by a short time, the fire could have spread in the cargo area of the aircraft while in the air. Although this incident occurred aboard a cargo-only aircraft, it just as easily could have occurred on a passenger-carrying flight.

The number of lithium batteries and cells being transported via aircraft appears to be steadily increasing, as is the lithium content of individual batteries and cells. Import statistics also show an increased demand for lithium batteries. Since 2001, primary lithium battery imports have increased more than 20%, from approximately 151 million units in 2001 to approximately 182 million units in 2003. See U.S. International Trade Commission DataWeb Import Statistics for Primary Cells and Primary Batteries, Lithium, Category 850650. With the growing consumer demand for portable powered devices that have increasing capacity to operate for long periods, more and more batteries that have very large reserves of electrical energy are being shipped. If not properly protected from short circuiting or prevented from accidental activation, these batteries can generate a large quantity of sparks and/or heat for an extended period.

D. Petition from the Air Line Pilots Association

On September 29, 2004 the Air Line Pilots Association, International (ALPA) petitioned RSPA to develop packaging standards for lithium primary batteries similar to those in place for other commodities that, in the event of a fire, including a suppressed cargo fire, would result in the loss of an aircraft. ALPA suggests that the packaging should not only be sufficient to protect the batteries from damage and short-circuiting, but also should be adequate to protect the batteries from self-ignition if exposed to the heat from a suppressed or unsuppressed cargo fire. ALPA further suggests that the severity of the safety problem requires immediate attention and that, if the packaging criteria cannot be met, bulk shipments

of lithium batteries should be prohibited on both passenger-carrying and cargo-only aircraft. ALPA also requested that DOT perform additional testing of lithium ion batteries and lithium batteries contained in equipment.

In its petition, ALPA references the recent RSPA rulemaking published under Docket HM–224B on May 6, 2004 (69 FR 25469), which proposed a requirement for oxygen cylinders to be overpacked in a packaging that would allow the cylinder to withstand a temperature of 400 °F for 3 hours. ALPA states that current packaging standards for lithium batteries provide no such protection against a suppressed cargo fire.

IV. Interim Final Rule

The incident reports and test data discussed above indicate that primary lithium batteries and cells shipped as cargo on passenger-carrying aircraft pose an immediate risk to the traveling public. This information shows that a primary lithium battery that is involved in a fire in a passenger aircraft cargo compartment could overcome the safety features of the cargo compartment; that if primary lithium batteries are not properly packaged or handled, they are capable of initiating a fire that could have catastrophic consequences. Therefore, in this interim final rule, RSPA is prohibiting the transportation as cargo of primary (non-rechargeable) lithium batteries and cells on passenger-carrying flights. We are implementing this restriction by reference to new Special Provisions A100, A101, and A102 in the hazmat table for the lithium battery entries. The current package quantity limitations for secondary lithium batteries have been moved unchanged to new Special Provisions A103 and A104. The action is this interim final rule are consistent with the policies of several airlines (*e.g.*, Northwest Airlines and KLM) who have already prohibited the transport of lithium batteries aboard their aircraft We are also prohibiting the transportation of equipment containing or packed with large primary lithium batteries as cargo (*i.e.* batteries greater than 25 grams) on passenger-carrying aircraft. These prohibitions apply to both domestic flights and international flights.

A. Cargo Aircraft

These prohibitions do not apply to shipments of primary lithium batteries and cells on a cargo-only aircraft. After careful consideration of past experiences with hazardous materials, recent incidents with lithium batteries, and NTSB safety recommendations, RSPA and FAA agree that the greatest risk to public safety is on passenger-carrying operations. While it is certainly possible that an incident involving a primary lithium battery may occur on a cargo-only aircraft, the risk to public safety is much lower.

Generally speaking, the characteristics of all-cargo aircraft provide options to pilots that would allow them to stop airflow to cargo compartments while the aircraft remains at a high altitude. Such action, especially at high altitude, would reduce the amount of oxygen available to a fire. Stopping or reducing the amount of oxygen to a compartment would help mitigate a fire. On a passenger aircraft, it would be more difficult to isolate airflow to a cargo compartment without also isolating air flow to the passenger compartment. The FAA confirmed that at least two major all-cargo air carriers already advise pilots to use these types of procedures to help respond to a fire.

B. Passengers Carrying Batteries in Carry-on or Checked Baggage

This interim final rule does not prohibit a passenger from transporting devices containing lithium batteries for personal use (such as laptop computers, cell phones, cameras, etc.) in carry-on or checked baggage nor does it restrict a passenger from transporting spare lithium batteries for personal use in carry-on or checked baggage.

Under this interim final rule, consumer electronics or medical devices containing a lithium battery, together with spare batteries for the device, are also permitted in checked baggage because it is not clear at this time to what extent the surrounding piece of equipment provides protection for the battery and prevents propagation. For each installed or spare cell or battery, the lithium content of the anode of each cell, when fully charged, may not exceed five grams, and the lithium content of the anodes of each battery, when fully charged, may not exceed 25 grams.

It is RSPA's belief that this interim final rule will have little or no effect on those personal electronic devices that passengers currently carry aboard passenger-carrying aircraft. RSPA and the FAA may consider this issue and others for future rulemaking action.

C. Batteries Shipped in or with Equipment

The prohibition in this interim final rule does not apply to the transportation as cargo on passenger aircraft of small primary lithium batteries that are shipped with or installed in equipment for which they are intended to provide power. The risk associated with shipment of primary lithium batteries in or with equipment is currently unclear. Studies conducted by the FAA and other government agencies focused only on shipments of primary lithium batteries, not on batteries contained in equipment. RSPA and the FAA will continue to study small lithium batteries shipped with equipment and will initiate additional actions as necessary.

Those primary lithium batteries or cells we are continuing to allow to be transported as cargo aboard passenger-carrying aircraft when packed with or in equipment must: (1) comply with the requirements and limitations of § 173.185(b)(1), (b)(2), (b)(3), (b)(4) and (b)(6) or § 173.185(c)(1), (c)(2), (c)(3) and (c)(5); (2) the battery or cell or equipment containing the battery or cell, as appropriate, must be packed in strong packagings; (3) the package contains no more than the number of primary lithium batteries or cells necessary to power the intended piece of equipment; and (4) the total net weight of the primary lithium batteries in the package does not exceed 5 kg. Further, these types of lithium batteries are only allowed to be transported aboard passenger-carrying aircraft when packed with the piece of equipment for which they are intended to provide power.

The provisions in § 173.185(b) and § 173.185(c) deal, in part, with the size of the lithium battery or cell and require that the cell or battery be hermetically sealed and that the batteries and cells be packed to prevent short circuiting. Concerning size limitations, § 173.185(c)(1) restricts the lithium content of the anode of each cell, when fully charged, to not more than five grams and the aggregate lithium content of the anodes of each battery, when fully charged, to not more than 25 grams.

D. Secondary Lithium (Rechargeable/ Lithium Ion) Batteries and Cells

FAA and RSPA have similar concerns with lithium (rechargeable/lithium ion) batteries in that they appear to have similar self-ignition characteristics as primary lithium cells and batteries when subjected to thermal and physical abuse conditions. However, the risks associated with the shipment of secondary (rechargeable/lithium ion) lithium batteries, particularly with respect to their ability to burn in an atmosphere containing Halon, are currently unclear. Studies conducted by the FAA focused only on shipments of primary lithium batteries, not secondary (rechargeable) lithium batteries. RSPA and the FAA will continue to study the

hazards associated with the transportation of secondary lithium batteries and we will initiate additional actions as necessary.

E. Marking of Packages

As noted previously, § 173.185 provides exceptions from the packaging and hazard communication requirements in the HMR for smaller lithium batteries and cells. When the lithium content of the battery or cell does not exceed certain limits, the batteries and cells must be packaged in strong outer packagings and in a manner to protect against short circuit; however, such shipments are excepted from all other HMR requirements. Without an appropriate marking, carriers will be unaware of the presence of primary lithium batteries and cells in these types of packagings and may inadvertently transport primary lithium batteries and cells aboard passenger-carrying aircraft. Therefore, in this interim final rule, we are revising these exceptions to require that excepted packages of primary lithium batteries and cells, when transported by highway, rail, vessel and cargo aircraft, be marked ''Primary Lithium batteries-Forbidden for transport aboard passenger aircraft''.

F. Exemptions and Approvals

RSPA has issued a number of Competent Authority Approvals and exemptions that authorize the transportation of certain lithium batteries on passenger-carrying aircraft. Consistent with the prohibitions imposed by this interim final rule, any existing approval or exemption that authorizes the shipment of primary lithium batteries on passenger-carrying aircraft, may no longer make use of that provision. An approval or exemption authorizing the shipment of lithium batteries on cargo-only aircraft, motor vehicles, rail cars or vessels may continue to be used.

G. Prohibitions Apply to International Flights

Annex 18 to the Convention on International Civil Aviation (Annex 18) addresses the safe transport of dangerous goods by air. The International Civil Aviation Organization (ICAO) publishes Technical Instructions for the Safe Transport of Dangerous Goods by Air. These Technical Instructions are recognized by contracting states as a set of international shipping standards. In the United States, 49 CFR 171.11 establishes limits on the use of the Technical Instructions by shippers and air operators. Section 2.5.1 of Annex 18 addresses state variations and indicates, ''Where a Contracting State adopts different provisions from those specified in the Technical Instructions, it shall notify ICAO promptly of each State variation for publication in the Technical Instructions.'' United States Variation number 1 is published in the Technical Instructions and indicates, in part, ''Transport of Dangerous Goods by air must be in accordance with United States'' Regulations (49 CFR 171–180) or the Technical Instructions as limited by 49 CFR 171.11.'' The new limits described, in part, by § 171.11 (d) (18) in this Interim Final Rule establish that the authority outlined in the Technical Instructions may not be used to transport the affected lithium batteries and cells by passenger aircraft into, out of, or within the United States.

V. Justification for Interim Final Rule

We are issuing this interim final rule without providing an opportunity for prior public notice and comment as is normally required by the Administrative Procedure Act (APA). *See* 5 U.S.C. 553. The APA authorizes agencies to dispense with certain notice and comment procedures if the agency finds good cause that notice and public procedure thereon are impracticable, unnecessary, or contrary to the public interest. *See* 5 U.S.C. 553(b)(3)(B). ''Good cause'' exists in situations when notice unavoidably prevents the due and required execution of agency functions or when an agency finds that due and timely execution of its functions are impeded by the notice otherwise required by the APA. See Administrative Procedure Act: Legislative History, S. Doc. No. 248 79–200 (1946); United States Department of Justice, Attorney General's Manual on the Administrative Procedure Act at 30–31 (1947). The Attorney General's Manual on the Administrative Procedure Act gives an example of an ''impracticable'' good cause situation where air safety rules should be amended without delay if the FAA determines that the safety of the traveling public is at stake. See United States Department of Justice, Attorney General's Manual on the Administrative Procedure Act at 30–31 (1947).

This action meets the good cause exception because of recent evidence that primary lithium batteries and cells shipped as cargo on passenger-carrying aircraft pose an immediate risk to the traveling public. This action is further supported by the fact that there has been several incidents involving lithium batteries in air transportation since 1999, and there have been several serious fires in the past five years, where if circumstances had been slightly different, it is very likely that there would be a significant risk to the safety of the flying public with potentially disastrous consequences. In these situations, if the primary lithium battery cargo had been on a passenger carrying aircraft and the fire occurred a short time later or had not been noticed, there could have been significant loss of life.

The Regulatory Policies and Procedures of DOT (44 FR 110034; February 26, 1979) provide that, to the maximum extent possible, DOT operating administrations should provide an opportunity for public comment on regulations issued without prior notice. Accordingly, we encourage persons to participate in this rulemaking by submitting comments containing relevant information, data, or views. We also invite comments by February 14, 2005 concerning the costs and benefits that may result from the provisions of this interim final rule and particularly the costs that may be incurred by small businesses. We also plan to hold a public meeting before the end of the comment period to hear comments and concerns related to the provisions of this IFR. We expect that the information provided at a public meeting will better enable us to address those concerns and, if necessary, respond rapidly to the need for any modifications to this IFR. We will consider all comments received on or before the closing date for comments. We will consider late-filed comments to the extent practicable. This interim final rule may be amended based on comments received.

VI. Justification for Effective Date Less than 30 Days

This interim final rule is effective fourteen days after publication in the **Federal Register**. The APA requires agencies to delay the effective date of regulations for 30 days after publication, unless the agency finds good cause to make the regulations effective sooner. See 5 U.S.C. 553(d). This interim final rule meets the good cause exception in this instance because of the potential catastrophic consequences should a fire occur in the cargo area of a passenger-carrying aircraft that involves primary lithium batteries. As discussed above, warning signs are clearly evident with several recent close calls, that primary lithium batteries and cells are capable of causing a catastrophic incident. It is imperative that the Department act now to prohibit the shipment of primary lithium batteries and cells on passenger-carrying aircraft. Because some shipments of batteries and cells are already en-route and it may be impossible to immediately identify,

remove, re-mark and re-route cargo currently aboard passenger-carrying aircraft, we are delaying the effective date of this interim final rule for fourteen days, so that primary lithium battery cargo shipments can be identified, properly marked and re-routed. This rule does not apply to those shipments that originated prior to the effective date. Shipments that originated prior to the effective date of the rule, but which will not reach their destination until after the effective date of this rule are not required to be re-routed to avoid passenger-carrying aircraft.

VII. Rulemaking Analysis and Notices

A. Statutory/Legal Authority for This Rulemaking

This interim final rule is published under authority of Federal hazardous materials transportation law (Federal hazmat law; 49 U.S.C. 5101 *et seq.*) and 49 U.S.C. 44701. Section 5103(b) of Federal hamat law authorizes the Secretary of Transportation to prescribe regulations for the safe transportation, including security, of hazardous material in intrastate, interstate, and foreign commerce. Title 49 United States Code § 44701 authorizes the Administrator of the Federal Aviation Administration to promote safe flight of civil aircraft in air commerce by prescribing regulations and minimum standards for practices, methods, and procedure the Administrator finds necessary for safety in air commerce and national security. Under 49 U.S.C. 40113, the Secretary of Transportation has the same authority to regulate the transportation of hazardous material by air, in carrying out § 44701, that he has under 49 U.S.C. 5103.

B. Executive Order 12866 and DOT Regulatory Policies and Procedures

The Department has determined that the transportation of primary lithium batteries and cells on-board passenger-carrying aircraft presents an immediate safety threat. Therefore, this rule is issued to address an emergency situation within the meaning of Section 6(a)(3)(D) of Executive Order 12866. Under Section 6(a)(3)(D), in emergency situations, an agency must notify OMB as soon as possible and, to the extent practicable, comply with subsections (a)(3)(B) and (C) of Section 6 of E.O. 12866. The Department has notified and consulted with OIRA/OMB on this interim final rule. We are preparing an assessment of potential costs and benefits resulting from this regulatory action. RSPA welcomes public comments on potential costs and benefits of this regulatory action.

Under the Department of Transportation's Regulatory Policies and Procedures (44 FR 11034), this rule is considered to be an emergency regulation. The Department has determined that an immediate safety threat exists in the transportation of primary lithium batteries and cells on board passenger aircraft and, therefore, this rule is considered to be an emergency regulation. Because of the need to move quickly to remove primary lithium batteries and cells from transportation on passenger aircraft, it would be impractical, unnecessary and contrary to the public interest to follow the usual procedures under the DOT order.

RSPA and FAA conducted a preliminary analysis of the impact of this interim final rule on current shipments of lithium batteries into and within the United States. Although this rule will clearly require some re-routing of lithium battery shipments, indications are that the overall impact will be limited due to the capacity of all-cargo flights into and within the United States. In addition, lithium batteries may also be shipped by other modes of transport.

RSPA and the FAA estimate that the economic impact of this Interim Final Rule to be less than $2 million for the first year, and less than that amount thereafter. This estimate is based on FAA conversations with industry, available primary lithium battery industry data, and air cargo industry data.

We were unable to identify a source that provides a definitive number of primary lithium batteries or the value of such batteries for the U.S. domestic market. Therefore, we estimated the domestic annual primary lithium battery market to be valued at $540 million. This estimate is based on doubling Department of Commerce import and export statistics for primary lithium batteries. Commerce reported that 244 million batteries valued at approximately $270 million are either imported or exported annually. Given that Commerce reports many more primary lithium batteries are imported, rather than exported, it is likely the domestic market is smaller than the international market and therefore, the estimate of $540 million is probably high.

Based on conversations with various lithium battery industry members, the FAA estimates that domestically, approximately 20% of lithium batteries are shipped via air and 80% are shipped via other modes of transportation. Assuming 20% of the primary lithium battery market (that is shipped by air) is affected by this rule, the annual dollar value of batteries potentially affected by this rule is approximately $108 million (20% of $540 million).

According to data compiled by the FAA, 25% of all air cargo is shipped on passenger aircraft, with 75% sent on all cargo aircraft. Therefore, assuming 25% of the primary lithium batteries sent by air are affected by this rule (75% sent by other modes are not affected), the annual dollar value of primary lithium batteries affected by this rule is approximately $27 million (25% of $108 million).

The FAA also assumes that only the shipping costs of a battery is affected by this rule, not the total value of a battery. Based on conversations with industry, shipping costs for primary lithium batteries is approximately 3% of total cost. Assuming a 3% shipping cost affected by this rule, the annual dollar value is reduced to approximately $810,000 (3% of $27 million).

The FAA estimates this cost to be high because preliminary discussions with industry indicate that some industry members send primary lithium batteries by cargo only aircraft. In addition, discussions with some airlines that have a separate cargo only fleet, indicate that shipping costs are the same for items shipped on a passenger carrying aircraft and a cargo only aircraft.

The FAA also assumes some cost for the marking requirement in this rule. While some cost is expected, this may be diminished because not every package of primary lithium batteries will require a marking, instead one label can be used for a package that contains a number of lithium batteries. In addition, this rule does not apply to primary lithium batteries that are already in the stream of commerce at the time of this rule, so shippers will not have to locate, label, and re-route shipments.

For primary lithium batteries imported to the U.S., the Official Airline Guide reports over 3,000 all-cargo aircraft flights entering the United States each month. A comparison of U.S. primary lithium battery trading partners with the schedule of all-cargo aircraft flights indicates an abundance of all-cargo capacity. For example, approximately 56 percent of all primary lithium battery imports are shipped from Japan, and there are over 300 scheduled all-cargo flights from Japan to the United States each month. Approximately 12 percent of all primary lithium battery imports are shipped from China, and there are over 152 scheduled all-cargo flights from China to the United States each month. In

addition, all-cargo flights from the United States serve major airport hubs world-wide from which cargo such as primary lithium batteries could be transshipped to their ultimate destination. Most importantly, discussions with industry indicate that the current air cargo infrastructure provides all cargo service to virtually every location in the world. Because certain items, including certain hazardous material, are prohibited from passenger aircraft, all cargo service already provides cargo only service to every location in the world. This is accomplished in part by ''feeder'' flights, contracted to local operators to reach remote locations.

While various lithium batteries are not affected by this interim final rule, such as lithium ion batteries, lithium batteries shipped in or with electronic devices, or lithium batteries carried by passengers, interested persons should be aware that the Department may initiate additional regulatory actions in the future to address these topics and others in all modes of transport.

C. Executive Order 13132

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13132 (''Federalism''). This rule preempts State, local, and Indian tribe requirements but does not impose any regulation that has substantial direct effects on the States, the relationship between the national government and the States, or the distribution of power and responsibilities among the various levels of government. Therefore, the consultation and funding requirements of Executive Order 13132 do not apply.

The Federal hazardous materials transportation law, 49 U.S.C. 5101–27, contains express preemption provisions (49 U.S.C. 5125) that preempt inconsistent State, local, and Indian tribe requirements, including requirements on the following subjects:

(1) The designation, description, and classification of hazardous materials;

(2) The packing, repacking, handling, labeling, marking, and placarding of hazardous materials;

(3) The preparation, execution, and use of shipping documents related to hazardous materials and requirements related to the number, contents, and placement of those documents;

(4) The written notification, recording, and reporting of the unintentional release in transportation of hazardous material; or

(5) The design, manufacture, fabrication, marking, maintenance, recondition, repair, or testing of a packaging or container represented, marked, certified, or sold as qualified for use in transporting hazardous material.

This rule addresses subject items (1), and (2) described above and, accordingly, State, local, and Indian tribe requirements on these subjects that do not meet the ''substantively the same'' standard will be preempted.

Federal hazardous materials transportation law provides at § 5125(b)(2) that, if DOT issues a regulation concerning any of the covered subjects, DOT must determine and publish in the **Federal Register** the effective date of Federal preemption. The effective date may not be earlier than the 90th day following the date of issuance of a final rule and not later than two years after the date of issuance. The effective date of Federal preemption is 90 days from publication of this interim final rule in this matter in the **Federal Register**.

D. Executive Order 13175

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13175 (''Consultation and Coordination with Indian Tribal Governments''). Because this final rule does not have tribal implications and does not impose direct compliance costs, the funding and consultation requirements of Executive Order 13175 do not apply.

E. Regulatory Flexibility Act and Executive Order 13272

Section 603 of the Regulatory Flexibility Act (RFA) requires an agency to prepare an initial regulatory flexibility analysis describing impacts on small entities whenever an agency is required by 5 U.S.C. § 553 to publish a general notice of proposed rulemaking for any proposed rule. Similarly, section 604 of the RFA requires an agency to prepare a final regulatory flexibility analysis when an agency issues a final rule under 5 U.S.C. 553 after being required to publish a general notice of proposed rulemaking. Because we have determined that there is an immediate safety threat and that primary lithium batteries and cells must be quickly removed from transportation on passenger aircraft, prior notice and comment would be contrary to the public interest. As prior notice and comment under 5 U.S.C. 553 are not required to be provided in this situation, the analyses in 5 U.S.C. sections 603 and 604 are not required.

F. Unfunded Mandates Reform Act of 1995

This rule does not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995. It does not result in costs of $120.7 million or more, in the aggregate, to any of the following: State, local, or Native American tribal governments, or the private sector.

G. Paperwork Reduction Act

There are no new information collection requirements in this final rule.

H. Regulation Identifier Number (RIN)

A regulation identifier number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN number contained in the heading of this document may be used to cross-reference this action with the Unified Agenda.

I. Environmental Assessment

The National Environmental Policy Act of 1969 (NEPA), as amended (42 U.S.C. 4321–4347), requires Federal agencies to consider the consequences of major federal actions and prepare a detailed statement on actions significantly affecting the quality of the human environment. This interim final rule prohibits primary lithium batteries and cells as cargo aboard passenger-carrying aircraft, thereby reducing the risk of fire aboard passenger-carrying aircraft and any resulting environmental damage. We find that there are no significant environmental impacts associated with this interim final rule.

J. Privacy Act

Anyone is able to search the electronic form for all comments received into any of our dockets by the name of the individual submitting the comments (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (Volume 65, Number 70; Pages 19477–78) or you may visit ''*http://dms.dot.gov*''.

List of Subjects

49 CFR Part 171

Exports, Hazardous materials transportation, Hazardous waste, Imports, Incorporation by reference, Reporting and recordkeeping requirements.

49 CFR Part 172

Education, Hazardous materials transportation, Hazardous waste, Labeling, Markings, Packaging and

containers, Reporting and recordkeeping requirements.

49 CFR Part 173

Hazardous materials transportation, Packaging and containers, Radioactive materials, Reporting and recordkeeping requirements, Uranium.

49 CFR Part 175

Air carriers, Hazardous materials transportation, Radioactive materials, Reporting and recordkeeping requirements.

■ In consideration of the foregoing, 49 CFR Chapter I is amended as follows:

PART 171—GENERAL INFORMATION, REGULATIONS, AND DEFINITIONS

■ 1. The authority citation for part 171 continues to read as follows:

Authority: 49 U.S.C. 5101–5127, 44701; 49 1.45 and CFR 1.53; Pub L. 101–410 section 4 (28 U.S.C. 2461); Pub. L. 104–134, section 31001.

■ 2. In § 171.11, paragraph (d)(18) is added to read as follows:

§ 171.11 Use of ICAO Technical Instructions.

* * * * *

(d) * * *

(18) Primary lithium batteries and cells are forbidden for transportation aboard passenger-carrying aircraft. Equipment containing or packed with primary lithium batteries or cells are forbidden from transport aboard passenger-carrying aircraft except as provided in § 172.102, Special Provision A101 or A103, of this subchapter. Except for primary lithium batteries and cells that are contained in or packed with equipment, packagings containing primary lithium batteries and cells that meet the exceptions in § 173.185(b) and (c) of this subchapter must be marked ''PRIMARY LITHIUM BATTERIES—FORBIDDEN FOR TRANSPORT ABOARD PASSENGER AIRCRAFT'' and may be transported aboard cargo-only aircraft.

■ 3. In § 171.12, paragraph (b)(22) is added to read as follows:

§ 171.12 Import and export shipment.

* * * * *

(b) * * *

(22) Except for primary lithium batteries and cells, packagings containing primary lithium batteries and cells that meet the exceptions in § 173.185(b) and (c) of this subchapter must be marked ''PRIMARY LITHIUM BATTERIES—FORBIDDEN FOR TRANSPORT ABOARD PASSENGER AIRCRAFT''.

* * * * *

■ 4. In § 171.12a, paragraph (b)(12) is added to read as follows:

§ 171.12a Canadian shipments and packagings.

* * * * *

(b) * * *

(12) Except for primary lithium batteries and cells, packagings containing primary lithium batteries and cells that meet the exceptions in § 173.185(b) and (c) of this subchapter must be marked ''PRIMARY LITHIUM BATTERIES—FORBIDDEN FOR TRANSPORT ABOARD PASSENGER AIRCRAFT''.

* * * * *

PART 172—HAZARDOUS MATERIALS TABLE, SPECIAL PROVISIONS, HAZARDOUS MATERIALS COMMUNICATIONS, EMERGENCY RESPONSE INFORMATION, AND TRAINING REQUIREMENTS

■ 5. The authority citation for part 172 is revised to read as follows:

Authority: 49 U.S.C. 5101–5127, 44701; 49 CFR 1.53.

§ 172.101 [Amended]

■ 6. In § 172.101, in the Hazardous Materials Table, the following changes are made:

a. For the entry ''Lithium batteries, contained in equipment'', in Column (7), Special Provisions ''A102, A104'' are added and Column (9A) is revised to read ''See A102, A104''.

b. For the entry ''Lithium batteries packed with equipment'', in Column (7), Special Provisions ''A101, A103'' are added and Column (9A) is revised to read ''See A101, A103''.

c. For the entry ''Lithium battery'', in Column 7, Special Provision ''A100'' is added and Column (9A) is revised to read ''See A100''.

■ 7. In § 172.102, in paragraph (c)(1), Special Provision 134 and 157 are revised and in paragraph (c)(2) Special Provisions A100, A101, A102, A103, and A104 are added to read as follows:

§ 172.102 Special provisions.

* * * * *

(c) * * *

(1) * * *

Code/Special Provisions

* * * * *

134 This entry only applies to vehicles, machinery and equipment powered by wet batteries, sodium batteries, or lithium batteries that are transported with these batteries installed. Examples of such items are electrically-powered cars, lawn mowers, wheelchairs, and other mobility aids. Self-propelled vehicles that also contain an internal combustion engine must be consigned under the entry ''Vehicle, flammable gas powered'' or ''Vehicle, flammable liquid powered'', as appropriate. Except as provided in Special Provision A102, vehicles, machinery and equipment powered by primary lithium batteries that are transported with these batteries installed are forbidden aboard passenger-carrying aircraft.

* * * * *

157 This entry includes hybrid electric vehicles powered by both an internal combustion engine and wet, sodium or lithium batteries installed. Vehicles containing an internal combustion engine must be consigned under the entry ''Vehicle, flammable gas powered'' or ''Vehicle, flammable liquid powered'', as appropriate. Except as provided in Special Provision A102, vehicles powered by primary lithium batteries, that are transported with these batteries installed are forbidden aboard passenger-carrying aircraft.

* * * * *

(2) * * *

A100 Primary (non-rechargeable) lithium batteries and cells are forbidden for transport aboard passenger carrying aircraft. Secondary (rechargeable) lithium batteries and cells are authorized aboard passenger carrying aircraft in packages that do not exceed a gross weight of 5 kg.

A101 A primary (non-rechargeable) lithium battery or cell packed with equipment is forbidden for transport aboard a passenger carrying aircraft unless:

a. The battery or cell complies with the requirements and limitations of § 173.185(b)(1), (b)(2), (b)(3), (b)(4) and (b)(6) or § 173.185(c)(1), (c)(2), (c)(3) and (c)(5) of this subchapter;

b. The package contains no more than the number of lithium batteries or cells necessary to power the intended piece of equipment;

c. The equipment and the battery or cell are packed in a strong packaging;

d. The gross weight of the package does not exceed 5 kg. Packages complying with the requirements of this special provision are excepted from all other requirements of this subchapter.

A102 A primary (non-rechargeable) lithium battery or cell contained in equipment is forbidden for transport aboard a passenger carrying aircraft unless:

a. The battery or cell complies with the requirements and limitations of § 173.185(b)(1), (b)(2), (b)(3), (b)(4) and (b)(6) or § 173.185(c)(1), (c)(2), (c)(3) and (c)(5) of this subchapter;

b. The package contains no more than the number of lithium batteries or cells

necessary to power the intended piece of equipment;

c. The equipment containing the battery or cell is packed in strong packagings; and

d. The net weight of the package does not exceed 5 kg. Packages complying with the requirements of this special provision are excepted from all other requirements of this subchapter.

A103 A secondary (rechargeable) lithium battery or cell packed with equipment is authorized aboard passenger carrying aircraft in packages that do not exceed a gross weight of 5 kg.

A104 A secondary (rechargeable) lithium battery or cell packed in equipment is authorized aboard passenger carrying aircraft in packages that do not exceed a net weight of 5 kg.

* * * * *

PART 173—SHIPPERS—GENERAL REQUIREMENTS FOR SHIPMENTS AND PACKAGINGS

■ 8. The authority citation for part 173 continues to read as follows:

Authority: 49 U.S.C. 5101–5127, 44701; 49 CFR 1.45, 1.53.

■ 9. In § 173.4, paragraph (d) is added to read as follows:

§ 173.4 Small quantity exceptions.

* * * * *

(d) Lithium batteries and cells are not eligible for the exceptions provided in this section.

■ 10. In § 173.185, the introductory text of paragraph (b) is revised, paragraph (b)(5) is redesignated as paragraph (b)(6), and new paragraph (b)(5) is added; then the introductory text of paragraph (c) is revised, paragraph (c)(4) is redesignated as paragraph (c)(5), and new paragraph (c)(4) is added; and paragraph (d) is revised to read as follows:

§ 173.185 Lithium batteries and cells.

* * * * *

(b) *Exceptions.* Except for primary (non-rechargeable) lithium batteries and cells transported aboard passenger-carrying aircraft, cells and batteries are not subject to any other requirements of this subchapter if they meet the following:

* * * * *

(5) The outside of each package that contains a primary (non-rechargeable) lithium battery or cell must be marked ''PRIMARY LITHIUM BATTERIES—FORBIDDEN FOR TRANSPORT ABOARD PASSENGER AIRCRAFT'' on a background of contrasting color, in letters:

(i) At least 12 mm (0.5 inch) in height on packages having a gross mass of more than 30 kg (66 pounds); or

(ii) At least 6 mm (0.25 inch) on packages having a gross mass of 30 kg (66 pounds) or less; and

* * * * *

(c) Except for primary lithium (non-rechargeable) batteries and cells transported aboard passenger-carrying aircraft, cells and batteries are not subject to any other requirements of this subchapter if they meet the following:

* * * * *

(4) The outside of each package that contains a primary (non-rechargeable) lithium battery or cell must be marked ''PRIMARY LITHIUM BATTERIES—FORBIDDEN FOR TRANSPORT ABOARD PASSENGER AIRCRAFT'' on a background of contrasting color, in letters:

(i) At least 12 mm (0.5 inch) in height on packages having a gross mass of more than 30 kg (66 pounds); or

(ii) At least 6 mm (0.25 inch) on packages having a gross mass of 30 kg (66 pounds) or less; and

* * * * *

(d) Except for transportation aboard passenger-carrying aircraft, cells and batteries and equipment containing cells and batteries that were first transported prior to January 1, 1995, and were assigned to Class 9 on the basis of the requirements of this subchapter in effect on October 1, 1993, may continue to be transported in accordance with the applicable requirements in effect on October 1, 1993.

* * * * *

■ 11. In § 173.220, paragraphs (d), (e) and (f) are redesignated as paragraphs (e), (f) and (g) and new paragraph (d) is added to read as follows:

§ 173.220 Internal combustion engines, self-propelled vehicles, mechanical equipment containing internal combustion engines, and battery powered vehicles and equipment.

* * * * *

(d) *Lithium batteries.* Except as provided in § 172.102, Special Provision A102, of this subchapter, vehicles and machinery powered by primary lithium batteries that are transported with these batteries installed are forbidden aboard passenger-carrying aircraft. Lithium batteries contained in vehicles or engines must be securely fastened in the battery holder of the vehicle or engine, and be protected in such a manner as to prevent damage and short circuits. Lithium batteries must be of a type that have successfully passed each test in the UN Manual of Tests and Criteria as specified in § 173.185, unless approved by the Associate Administrator. Equipment, other than vehicles or engines, containing lithium batteries must be transported in accordance with § 173.185.

* * * * *

PART 175—CARRIAGE BY AIRCRAFT

■ 12. The authority citation for part 175 is revised to read as follows:

Authority: 49 U.S.C. 5101–5127, 44701; 49 CFR 1.53.

■ 13. In § 175.10, paragraph (a)(27) is added to read as follows:

§ 175.10 Exceptions.

(a) * * *

(27) Except as provided in § 173.21 of this subchapter, consumer electronic and medical devices (watches, calculators, cameras, cellular phones, lap-top computers, camcorders, and hearing aids, etc.) containing lithium cells or batteries, and spare lithium batteries and cells for these devices, when carried by passengers or crew members in carry-on or checked baggage for personal use. In addition, each installed or spare battery must conform to the following:

(i) The lithium content of the anode of each cell, when fully charged, is not more than 5 g; and

(ii) The aggregate lithium content of the anodes of each battery, when fully charged, is not more than 25 g.

* * * * *

Issued in Washington, DC, on December 10, 2004 under authority delegated in 49 CFR Part 1.

Samuel G. Bonasso,

Deputy Administrator.

[FR Doc. 04–27423 Filed 12–10–04; 1:59 pm]

BILLING CODE 4910–60–P