

Cargo monitoring devices defined

Delta Airlines caused a stir in late November 2008 when it stopped accepting cargo with temperature monitoring devices. Since then, Sensitech has become the first temperature monitoring manufacturer to receive formal approval for both the lithium battery and electromagnetic interference issue.

On 25 November 2008, Delta Airline's cargo department issued a memo stating that they would no longer accept cargo with temperature monitoring devices. Delta did not interpret the US Department of Transportation (DoT) Pipeline and Hazardous Materials Safety Administration – 49 CFR Hazardous Materials, Transportation of Lithium Batteries – to pertain to devices used to monitor cargo.

At the centre of the confusion was that the regulations clearly covered batteries as cargo, as bulk and within equipment as well as batteries in carry-on or checked passenger luggage, but was not interpreted as being explicit in covering batteries contained in devices that monitor cargo.

Working to address this perceived ambiguity, Sensitech requested a formal interpretation from the US DoT. Sensitech believed temperature monitors should be covered under the current regulations and as such would qualify for the exceptions provided for small lithium batteries under Special Provision 188 – given the characteristics of the batteries used in Sensitech's devices.

Resolution

On 4 December 2008, Edward T Mazzullo, director, Office

of Hazardous Materials Standards Pipeline and Hazardous Materials Safety Administration, US DoT, agreed with Sensitech's position. 'The devices are offered for transport and transported in commerce,' he stated in a letter. 'Thus, to the extent they contain hazardous materials, they are subject to the applicable provisions of the Hazardous Materials Regulations (HMR). Based on the information Sensitech has provided, we agree with the assessment that these devices qualify for the exceptions provided for small lithium batteries under SP 188.'

While this letter specifically mentions Sensitech's products, the US DoT's position clarifies this ruling to include all temperature monitoring devices provided that the device in question complies with the HMR regulations. It is important to note that it is up to each device manufacturer to ensure that they comply with the regulations.

International regulations

While the US DoT regulations generally apply to US-flagged air carriers, it is important to recognise that the International Air Transport Association (IATA) Dangerous Goods Regulations (DGR)/International Civil Aviation Organization (ICAO)'s Technical Instructions are followed by non US

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flagged carriers. IATA's documentation is often described as adding important and valuable operational details and is commonly considered a 'field guide'.

Small lithium metal and lithium ion batteries are exempt from most of the requirements of the IACO Technical Instructions and IATA DGR, provided that they comply with all of the requirements set out in Part 1 of Packing Instructions 968, 969, and 970 for lithium metal batteries. Again, Sensitech's devices fall into this category and meet all of the conditions outlined in the packing instruction. Sensitech received formal approval from the Safety Standards Department at IATA on 22 January 2009.

Electromagnetic testing

A related point of contention has been electromagnetic compatibility. The FAA requires that devices operating on a flight be tested to ensure there is no interference with flight systems (see FAA Advisory Circular 91-21.1B). Delta's engineering department worked closely with Sensitech and the FAA on this topic and Delta issued a formal

approval of Sensitech's devices on 27 January 2009.

As part of the approval process, Delta is expected to require that shippers document all shipments containing approved temperature monitoring devices and specifically indicate the manufacturer and model number of the approved device on the air waybill.

Sourcing quality

It is critical for a shipper to source products from a high-quality supplier that has completed the necessary testing and documentation to ensure that their products comply with global regulations. This can be an extremely time-consuming and costly process and requires that the manufacture have the necessary quality systems and validation protocols in place to ensure compliance. **WPF**

Company profile

Sensitech is a business unit of Carrier Corp, the world's largest provider of heating, air conditioning and refrigeration solutions, with operations in 172 countries. For more information, visit: www.sensitech.com.