国 际 民 用 航 空 组 织

DGP/25-WP/24
20/8/15

工 作 文 件

危险物品专家组（DGP）

第二十五次会议

2015年10月19日至30日，蒙特利尔

议程项目5： 拟定一项全面战略以减缓与锂电池运输相关的风险，包括拟定基于性能的包装标准并努力促进合规

锂电池作为货物航空运输

（由M. Rogers提交）

摘要

本工作文件提出了一项正式提案，禁止客机运输锂电池。

危险物品专家组的行动：请危险物品专家组按照本工作文件附录所示，审议禁止客机运输锂电池。

1. INTRODUCTION

1.1 At the DGP Working Group Meeting in April 2015 (DGP-WG/15, Montréal, 27 April to 1 May 2015), International Coordinating Council of Aerospace Industries Associations (ICCAIA), in cooperation with the International Federation of Air Line Pilots' Associations (IFALPA), presented a working paper addressing the transport of lithium ion batteries on passenger aircraft. One of the recommendations was that high density packages of lithium ion batteries and cells (UN 3480) not be transported as cargo on passenger aircraft until such time as safer methods of transport were established and followed.

1.2 In part because no concise definition of "high density" was presented in April, no further action was taken at that time to address the recommendation to not transport high density shipments of lithium ion batteries. The working group agreed, however, to convene a third international multidisciplinary lithium battery coordination meeting to address the transport provisions for lithium batteries, which was held in Montréal from 28 to 30 July 2015.

1.3 A single definition of high density in terms of numbers of batteries, cells, or packages is not available, due to the various chemistries, packaging configurations, states of charge, and other

variables allowed by the Technical Instructions for the transport of lithium ion batteries. Additionally, the configuration of the cargo compartment in which the batteries are transported, including compartment volume and fire protection features, is not considered. A "high density" shipment is therefore any shipment that may overwhelm the aircraft fire suppression system in the cargo compartment being used if a single cell or battery in the shipment goes into thermal runaway or is ignited by an external fire.

1.4 The propensity to overwhelm an aircraft's fire suppression system is determined by the energy available in each cell or battery, and the likelihood that a fire in a cell or battery will propagate to other cells or batteries in the shipment. As such, a single large format battery may be considered high density, as may a single package of 5 kg of lithium ion batteries, which may contain as many as 250 individual cells.

1.5 Additionally, no provisions exist within the Technical Instructions to limit placing multiple packages of lithium ion batteries together in a single cargo compartment, whether or not as part of an overpack. This could result in packages that would otherwise not be considered high density forming a high density shipment within a single cargo compartment under the current provisions.

1.6 The preferable method to prevent shipments of lithium ion batteries from potentially overwhelming an aircraft's fire suppression system is therefore to develop a packaging standard that contains the hazardous effects of a fire to within the package while protecting the package from an external fire, and one which prevents propagation of a fire between packages. Following the latest multidisciplinary meeting in July, it is expected that an independent standard writing group will develop such a standard over the next few years. Until that standard is developed and implemented, shipments of lithium ion batteries (UN 3480) should not be carried aboard passenger aircraft.

2. ACTION BY THE DGP

2.1 The DGP is invited to prohibit shipments of UN 3480 — **Lithium ion batteries** on passenger aircraft, as shown in the appendix to this working paper.

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附录

技术细则第3部分的建议修订

第3部分

危险物品表，特殊规定和限制数量与例外数量

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第 2 章

危险物品表（表3-1）的编排

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表 3-1. 危险物品表

名称	UN 编号	类别或项别	次要危险性	标 签	国家差异条款	特殊规定	UN 包装等级	例外数量	*客机*		*货机*	
									包装说明	每个包装件最大净量	包装说明	每个包装件最大净量
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*
Lithium ion batteries (including lithium ion polymer batteries) **锂离子电池**（包括锂离子聚合物电池）	3480	9		杂项危险物品—锂电池	US 3	A88 A99 A154 A164 A183 A206		E0	~~见 965~~ 禁运		See 965	

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