

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

关于全货机上锂电池的减缓措施

(由M. Rogers提交)

摘要

本工作文件提出了关于在全货机上运载**锂离子电池**(UN 3480)和**锂金属电池**(UN 3090)的减缓战略。

危险物品专家组的行动:请危险物品专家组考虑通过本工作文件附录所载的对《技术细则》的修改。

1. **INTRODUCTION**

- 1.1 At a special additional meeting of DGP/24 in April 2014 (DGP-WG/LB/2, Montréal, 7 to 11 April 2014), the panel adopted a prohibition on **Lithium metal batteries** (UN 3090) as freight on passenger aircraft. This action was taken, in part, due to the inability of on-board fire suppression systems to adequately suppress a fire involving lithium metal batteries. No change to the transport provisions for lithium metal batteries on all-cargo aircraft was adopted.
- 1.2 Subsequent testing of **Lithium ion batteries** (UN 3480) by the U.S. Federal Aviation Administration (FAA) at the William J. Hughes Technical Center in Atlantic City, New Jersey, demonstrated that lithium ion batteries present an explosion hazard on aircraft, due to the venting of flammable gasses during thermal runaway. This testing, along with other recognized hazards of lithium ion batteries, led to a separate proposal being presented to DGP/25 to prohibit **Lithium ion batteries** (UN 3480) as freight on passenger aircraft.

- 1.3 While it is recognized that revisions to the Technical Instructions regarding the transport provisions on passenger aircraft for both lithium metal and lithium ion batteries were made and are being considered to enhance flight safety, it is nevertheless evident that significant quantities of lithium ion and lithium metal batteries are transported on all-cargo aircraft. These aircraft may be carrying lithium batteries in higher quantities than on passenger aircraft, and in cargo compartments that do not have as capable of fire suppressions systems as are present on the majority of passenger aircraft.
- Several proposals have been made to prohibit lithium metal and lithium ion battery shipments on all-cargo aircraft until adequate packaging can be developed to ensure their safe transport. Recognizing that a packaging solution is still years away, and that the panel has shown little support for a prohibition of either lithium metal or lithium ion batteries on all-cargo aircraft, it is nevertheless felt that additional mitigation strategies should be employed for all-cargo aircraft carrying lithium batteries as freight. It is recognized that these are only incremental measures proposed to increase the safety of lithium battery transport and that they do not, in themselves, ensure the safe transport of lithium batteries. They are proposed as temporary measures pending a comprehensive solution that would mitigate the hazards posed by lithium battery shipments.

2. **ACTION BY THE DGP**

2.1 The panel is invited to adopt revisions to the Technical Instructions to improve the safety of lithium battery shipments on all-cargo aircraft as shown in the appendix to this working paper.

附录

对《技术细则》第7部分的拟议修订

第7部分

运营人的责任

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第2章

仓储和装载

本章部分内容受以下国家差异条款的影响: CA1、CA4、IR2、IR4、JP9、JP10、JP11、JP12、US15; 见表A-1

2.1 驾驶舱和客机的装载限制

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2.15 在货机上装载UN3090锂金属电池和UN3480锂离子电池

<u>必须按照以下规定,在货机上装运UN 3090 - 锂金属电池和UN 3480 - 锂离子电池的包装件和合成包装件:</u>

- a) 装在C级航空器货舱内,或具有最强灭火系统的货舱内;
- b) 与其他危险物品隔离开来。这一要求不适用于III级包装的易燃液体 $(\hat{\mathbf{33}})$ 、毒性或感染性物质 $(\hat{\mathbf{36}})$ 、放射性物质 $(\hat{\mathbf{37}})$ 或杂项危险物品 $(\hat{\mathbf{39}})$ 货物;和
- c) 应尽可能将锂电池货物与其他锂电池货物分隔开来,以便降低锂电池在任一位置的密度。