



U.S. Department  
of Transportation

Pipeline and Hazardous Materials  
Safety Administration

1200 New Jersey Avenue SE  
Washington DC 20590

NOV 25 2014

Mr. Nick Pelster  
Program Manager  
Space Information Laboratories  
2260 S. Meredith Lane  
Santa Maria, CA 93455

Ref. No.: 14-0152

Dear Mr. Pelster:

This responds to your July 31, 2014 letter requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to the testing of rechargeable lithium cells and batteries. On behalf of Space Information Laboratories (SIL), in your letter you state that SIL has four battery units undergoing United Nations (UN) Manual of Tests and Criteria testing. The SIL battery unit consists of two cell packs and a printed circuit board assembly (PCBA) which is enclosed in an aluminum housing. You state that each cell pack consists of eight lithium-ion pouch cells and that each cell pack is separately wired to the PCBA. You state that the PCBA provides independent protection circuitry for each cell pack. You provided a proprietary memorandum that described the configuration in more detail along with associated schematics. You note that according to the definitions in 38.3.2.2 of the UN Manual of Tests and Criteria, your units are considered small batteries because the gross weight is less than 12 kg. You further note that according to 38.3.3(b)(ii) and (b)(iii) of the UN Manual of Tests and Criteria, when testing rechargeable cells and batteries under tests 1 to 5, the required testing is for eight small batteries; four of which are charge cycled 50 times and four of which are at 1st charge cycled. You ask whether your 20 Ah rechargeable battery unit would be considered two batteries (or one battery) for the purpose of meeting the UN Manual of Tests and Criteria requirements.

Based on the proprietary memorandum you provided describing the configuration along with the associated schematics, it is the opinion of this Office that your 20 Ah rechargeable battery unit is comprised of two batteries provided they are electrically isolated from each other.

I trust this satisfies your inquiry. Please contact us if we can be of further assistance.

Sincerely,

T. Glenn Foster  
Chief, Regulatory Review and Reinvention Branch  
Standards and Rulemaking Division

Nichels  
173.185  
Batteries

14-0152

**Dodd, Alice (PHMSA)**

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**From:** Nick Pelster <Nick.Pelster@spaceinformationlabs.com>  
**Sent:** Thursday, July 31, 2014 4:18 PM  
**To:** Dodd, Alice (PHMSA)  
**Cc:** DerKinderen, Dirk (PHMSA); Edmund Burke  
**Subject:** Request for Interpretation  
**Attachments:** 2014 07 31 SIL DOT Ruling Letter.pdf; DoT Request for interpretation memo-31Jul14.docx

Ms. Dodd,

Attached is a letter from our company requesting formal interpretation on our product from the DoT. Also attached is a memo with supporting information for the request. Please note that the memo includes proprietary information we do not want to have released to the public. Please acknowledge receipt of this request.

If you have any questions or need any additional information, please let me know.

Best Regards,

Nick Pelster  
Program Manager

Space Information Laboratories, LLC  
2260 Meredith Lane  
Santa Maria, CA 93455  
Office: (805) 925-9010, ext 4#



31 July 2014

Charles Betts  
U.S. Department of Transportation  
PHMSA Office of Hazardous Materials Standards  
Attn: PHH-10  
East Building  
1200 New Jersey Avenue, SE.  
Washington, DC 20590-0001

Dear Mr. Betts,

Space Information Laboratories (SIL) requests written clarification regarding our 20 Ah battery unit. Specifically, SIL requests official interpretation whether each battery unit would be considered two batteries for the purpose of meeting the UN Manual of Tests and Criteria requirements. SIL has four battery units undergoing UN testing (T.1-T.5 & T.7) and would like a determination whether eight batteries are actually being tested.

The SIL battery unit consists of two cell packs and a printed circuit board assembly (PCBA) enclosed in an aluminum housing. Each cell pack consists of 8 lithium-ion pouch cells. Each cell pack is separately wired to the PCBA. The PCBA provides independent protection circuitry for each cell pack. Attached is a proprietary memorandum that describes the configuration in more detail along with associated schematics.

The SIL primary point of contact is Nick Pelster, Program Manager at 805-925-9010, Ext. 4# or e-mail: [Nick.Pelster@spaceinformationlabs.com](mailto:Nick.Pelster@spaceinformationlabs.com).

I appreciate your attention to this matter along with your written clarification.

Sincerely,

A handwritten signature in cursive script that reads "Edmund Burke".

Edmund Burke  
Space Information Laboratories  
President  
2260 S. Meredith Lane  
Santa Maria, CA 93455  
Phone: 805-925-9010  
Cell: 805-720-2784  
E-mail: [Edmund.Burke@spaceinformationlabs.com](mailto:Edmund.Burke@spaceinformationlabs.com)