

March 18, 2016



U.S. Department  
of Transportation

East Building, PHH-30  
1200 New Jersey Avenue S.E.  
Washington, D.C. 20590

**Pipeline and Hazardous  
Materials Safety Administration**

DOT-SP 16477  
(FIRST REVISION)

EXPIRATION DATE: February 28, 2018

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Hydroid, Inc.  
Pocasset, MA
2. PURPOSE AND LIMITATION:
  - a. This special permit authorizes the transportation in commerce of certain prototype and low production lithium ion batteries contained in equipment. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein. The most recent revision supersedes all previous revisions.
  - b. The safety analyses performed in the development of this special permit only considered the hazards and risks associated with the transportation in commerce.
  - c. No party status will be granted to this special permit.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.185(e) in that prototype and low production lithium ion batteries are not authorized to be transported when contained in equipment, except as specified herein.
5. BASIS: This special permit is based on the application of Hydroid, Inc. dated May 14, 2015 submitted in accordance with § 107.105 and the public proceeding thereon and additional information dated March 3, 2016.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

<b>Hazardous Materials Description</b>			
<b>Proper Shipping Name</b>	<b>Hazard Class/ Division</b>	<b>Identification Number</b>	<b>Packing Group</b>
Lithium ion batteries contained in equipment	9	UN3481	N/A

7. SAFETY CONTROL MEASURES:a. Safety Controls:

(1) This special permit is only applicable to transportation of prototype and low production lithium ion batteries (i.e., production run of fewer than 100 annually) contained in equipment referred to as the Next Generation REMUS (NGR) vehicle with not more than 1,600 Wh energy rating total.

(2) The batteries contained in equipment are protected against external short circuiting.

(3) The batteries contained in equipment are equipped with an effective means of preventing dangerous reverse current flow.

(4) The shipment is authorized within an 80 mile radius of Hydroid Inc.'s facility in Massachusetts.

(5) Dedicated private motor vehicles operated by Hydroid, Inc. must be used for transportation.

b. Testing Requirements: The cell type (identified as Model Name INR18650-32E on Report No. SDI-UN-140702-01 dated 2011, Revision 6) used in the NGR vehicles must have passed the tests in accordance with the UN Manual of Tests and Criteria, 5<sup>th</sup> Revised Edition or subsequent editions.

c. Packaging Requirements:

(1) Lithium batteries contained in equipment must be packaged as follows:

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(i) Lithium batteries must be packaged within the strong, impact-resistant cylindrical aluminum hull section of the NGR vehicle.

(ii) Each cylindrical hull section containing the lithium batteries must be surrounded by cushioning material and packed in strong-impact resistant Pelican Hardigg Shipping Cases of the Single Lid, Trunk Case or Long Case classes as specified in the Pelican Products, Inc. document Part No. 0030-001-900 AU/10 on file with the Office of Hazardous Materials Safety Approvals and Permits Division. The maximum number of hull sections packaged within a Pelican Hardigg Shipping Case may not exceed one.

(iii) The completed package must be water-resistant.

(2) The completed package must be capable of meeting Packing Group I performance criteria.

(3) All items containing lithium batteries must be secured to prevent movement and accidental operation during transportation.

d. Marking Requirements: Each package must be marked with the special permit number in accordance with § 172.301(c). Batteries manufactured after December 31, 2011 must be marked with the Watt-hour rating on the outside case.

8. SPECIAL PROVISIONS:

a. A person who is not a holder of this special permit who receives a package covered by this special permit may reoffer it for transportation provided no modification or change is made to the package and it is reoffered for transportation in conformance with this special permit and the HMR.

b. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, and cargo vessel.

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10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each cargo vessel or motor vehicle used to transport packages covered by this special permit.
11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:
  - o All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
  - o Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
  - o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)—"The Hazardous Materials Safety and Security Reauthorization Act of 2005" (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term "exemption" to "special permit" and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.

12. REPORTING REQUIREMENTS: Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR §§ 171.15 Immediate notice of certain hazardous materials incidents, and 171.16 Detailed hazardous materials incident reports. In addition, the grantee(s) of this

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special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:



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for Dr. Magdy El-Sibaie  
Associate Administrator for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Material Safety Administration, U.S. Department of Transportation, East Building PHH-30, 1200 New Jersey Avenue, Southeast, Washington, D.C. 20590.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at [http://hazmat.dot.gov/sp\\_app/special\\_permits/spec\\_perm\\_index.htm](http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm). Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: Hwang/NICKS