

Research and  
Special Programs  
Administration

APPROVAL CA2004040007  
ISSUED BY THE COMPETENT AUTHORITY OF THE UNITED STATES  
Expiration Date: 04-30-2009

- 1 **APPROVAL HOLDER ;** **Bluefin Robotics Corp**  
301 Massachusetts Ave  
Cambridge MA 02139
- 2- **REGULATORY AUTHORITY:** 49 CFR § 173.185{i}, 172.102{c} (2)  
A54 and A55 and International Civil Aviation Organization's  
Technical Instructions for the Safe Transportation of  
Dangerous Goods by Air {ICAO TI) Special Provision ASS, A99  
and State Variation us 3.
- 3 **SYNOPSIS:** Bluefin Robotics Corp. is authorized to offer for  
transportation prototype lithium-Ion polymer cells and  
batteries in accordance with the conditions of this  
approval.
- 4 **BASIS:** This approval is issued in response to Bluefin  
Robotics Corporation's application dated April 6, 2004.
5. **PERIOD OF VALIDITY AND CONDITIONS OF APPROVAL:** This  
approval does not provide relief from any requirements of  
the Hazardous Materials Regulations except as stated herein.  
This approval is valid until terminated by the Associate  
Administrator for Hazardous Materials Safety.
- a. **Approved Materials:** Only the following material(s) may  
be transported under the terms of this approval.

| Proper shipping name-Hazardous materials description | Hazard Class / Division | Identification Number | Packing Group |
|------------------------------------------------------|-------------------------|-----------------------|---------------|
| Lithium battery                                      | UN3090                  | 9                     | II            |

b- Safety Controls: Only prototype and low production lithium cells and batteries (i.e. production run of less than 100) may be transported under the provision of this approval.

c. Testing:

(1) Cells and batteries must be subjected to the following tests:

(i) Three cells or one battery must be stored at 55°C for at least 48 hours followed by a short circuit test (connecting a conductor across the positive and negative terminals and maintain this short circuit for at least 1 hour after the case temperature has returned to 55°C); or

(ii) If batteries comprise cells that have passed all required test as specified in the "UN Manual of Test and Criteria", the short circuit test may be conducted at room temperature {approximately 23°C}.

(2) Cells and batteries are considered safe to transport under the terms of "this approval if the cells and batteries show no disassembly or fire.

d. Packaging:

**(1) Cells and batteries must be individually packaged in inner packaging and surrounded by cushioning material that is non-combustible, and non-conductive. Cells and batteries must be protected against short-circuiting;**

**(2) Cells and batteries must be packaged in a metal outer packaging that meets packing Group I performance criteria.**

(3) The cells and batteries per completed package may not exceed the following limitations:

RECHARGEABLE LITHIUM CELLS AND BATTERIES

Cells

.< 1.5 g: No more than 24 per package .1.5 g-  
59: No more than 12 per package .> 5 g; No  
more than 6 per package

BATTERIES

.< 8 g: No more than 12 per package  
.8 g- 25 g: No more than 6 per package .>  
25 g: No more than 1 per package

FOR PRIMARY LITHIUM CELLS AND BATTERIES

CELLS

.< 1 g: No more than 24 per package  
.1 g- 5 g: No more than 12 per package .> 5  
g: No more than 6 per package

BATTERIES

.< 2 g: No more than 12 per package  
.2 g- 25 g; No more than 6 per package .~  
25 g= No more than 1 per package

(iii) No single package may contain more than  
500 g of lithium metal or equivalent lithium  
content.

e. Marking Requirements : Each package and overpack if used,  
prepared under the provisions of this approval must be  
plainly marked with the approval number.

6. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, and  
cargo aircraft.

7. SPECIAL PROVISIONS :

a. A current copy of this approval must be maintained and  
made available for examination at each location where  
materials are packaged and offered for transportation.

b. Any person who offers for transportation or transports the above-described package (s) may do so under the authority of this approval if all requirements and conditions of this approval are met.

## 8. GENERAL PROVISIONS:

a. Failure by any person to comply with the terms and conditions of this approval, the Hazardous Materials Regulations, 49 CFR Parts 171-180, and the International Civil Aviation Organization's Technical Instructions for the Safe Transportation of Dangerous Goods by Air (ICAO TI) may result in the modification, suspension or termination of that person's authority to use this approval. Failure to comply may also subject that person to penalties prescribed by 49 U.S.C. §§ 5123 and 5124. This approval may be modified, suspended or terminated in its entirety if that action is justified in light of changes in circumstances or additional information not available when this approval was issued. Unless immediate modification, suspension or termination is necessary to avoid a risk of significant harm to persons or property, before action is taken, that person will be notified and provided with an opportunity to show why the proposed action should not be taken.

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

Issued in Washington, D.C.

Dated: April 14, 2004

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Address all inquiries to: Associate Administrator for Hazardous Materials  
Safety. Research and Special Programs Administration. Department of  
Transportation, Washington, D.C. 20590.  
Attention: DHM-32.