1. **GRANTEE:** Zero Motorcycles Inc.  
   Scotts Valley, CA

2. **PURPOSE AND LIMITATION:**
   
a. This special permit authorizes the transportation in commerce of lithium ion batteries exceeding 35 kg by cargo-only aircraft. This special permit provides no relief from the Hazardous Materials Regulations (HMR) or the International Civil Aviation Organization’s Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO TI) 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.

d. This special permit serves as an approval under Special Provision A99, as an approval under 49 CFR 173.185(b)(5), and as a “Competent Authority Approval” as defined under 49 CFR § 107.1.

3. **REGULATORY SYSTEM AFFECTED:** 49 CFR Parts 106, 107 and 171-180.

4. **REGULATIONS FROM WHICH EXEMPTED:** 49 CFR § 172.101 Hazardous Materials Table Column (9B) in that a battery may not exceed 35 kg, except as specified herein and 173.185(b)(5) in that lithium batteries that weigh 12 kg or more and have a strong, impact-resistant outer casing may be packed in a strong outer packaging, as specified herein.

Tracking Number: 2022075206
5. **BASIS:** This special permit is based on the application of Zero Motorcycles Inc. dated July 11, 2022 submitted in accordance with § 107.105 and the public proceeding thereon.

6. **HAZARDOUS MATERIALS (49 CFR 172.101):**

<table>
<thead>
<tr>
<th>Hazardous Materials Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper Shipping Name</td>
</tr>
<tr>
<td>-----------------------</td>
</tr>
<tr>
<td>Lithium ion batteries including lithium ion polymer batteries</td>
</tr>
</tbody>
</table>

7. **SAFETY CONTROL MEASURES:**

a. **OPERATIONAL CONTROLS:**

(1) The battery packs authorized to be offered for transportation under the terms of this special permit are identified below and must conform to the application dated July 11, 2022 and on file with the Office of Hazardous Materials Safety (OHMS):

<table>
<thead>
<tr>
<th>Battery Pack ID</th>
<th>Rates Capacity (kWh)</th>
<th>ID of Modules Used</th>
<th>Mode of Module Connection</th>
<th>Net Mass (kg)</th>
</tr>
</thead>
</table>
| 46-08160 Assembly Battery Monolith FST | 13 | ● 88-09977-01 Farasis  
● 88-09978 Long Cell Box | 2 in parallel | 83 |
| 46-08300 BCB Monolith | 14.92 | ● 88-09977-01 Farasis  
● 88-09978 Long Cell Box | 2 in series | 80 |
| 46-08227 Assembly Battery Monolith ZF14.4 | 13 | ● 88-09977-01 Farasis  
● 88-09978 Long Cell Box | 2 in parallel | 80 |
(2) The terminals of the cells and battery modules must be protected to prevent against external short circuits.

(3) The cells and battery modules connected in parallel must be equipped with an effective means to prevent dangerous reverse current flow.

(4) The state of charge for lithium ion battery packs must be not more than 30% when offered for air transportation.

(5) Not more than one battery pack may be packaged within an outer packaging.

(6) The gross mass of a package may not exceed 102 kg (225 pounds).

(7) A battery pack must be equipped with a battery management system that has been verified as preventing overcharge, short circuits, and over discharge between the modules.

b. TESTING REQUIREMENTS:

(1) The battery modules must consist of cells that have passed all required tests in accordance with Section 38.3 of the UN Manual of Tests and Criteria, 5th Revised Edition. The authorized cells are Farasis Energy Model IMP06160230P29F and must conform to the test submitted on July 11, 2022 and on file with OHMS.

(2) The battery modules must have passed all required tests in accordance with Section 38.3 of the UN Manual of Tests and Criteria, 5th or 6th Revised Edition, as appropriate in accordance with the test reports submitted on July 11, 2022 and on file with OHMS.

c. PACKAGING:

(1) Each battery pack must weigh 12 kg or greater and have a strong, impact-resistant outer casing.

(2) Each battery pack must be wrapped with non-conductive foam on the sides and top along with the foam pad on the bottom and be packaged in a UN specification 4D wooden box that meets the Packing Group II performance level. The 4D wooden box serves as a strong outer packaging.

(3) Packaging must comply with the requirements in Packing Instruction 974 of the Supplement to the ICAO TI.
d. **MARKING REQUIREMENTS:** Each package, and overpack if used, prepared under the provisions of this special permit must be plainly marked with the special permit number “DOT-SP 21414”.

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 or its contents and it is reoffered for transportation in conformance with this special permit, the HMR, and the ICAO TI.

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:** Cargo-only aircraft.

10. **MODAL REQUIREMENTS:** A current copy of this special permit must be carried aboard each aircraft used to transport packages covered by this special permit. The shipper must furnish a copy of this special permit to the air carrier before or at the time the shipment is tendered.

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.

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 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.:

for William Schoonover
Associate Administrator for Hazardous Materials Safety


Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at https://www.phmsa.dot.gov/approvals-and-permits/hazmat/special-permits-search. Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: SH/TG