1. **GRANTEE:** Alevo USA Inc.  
   Concord, NC

2. **AGENT:** George Kerchner  
   Wiley Rein LLP  
   Washington, DC

3. **PURPOSE AND LIMITATIONS:**
   a. This emergency special permit authorizes the transportation in commerce of prototype lithium ion batteries in a containerized Gridbank system in a non specification packaging. 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 development of this special permit only considered the hazards and risks associated with transportation in commerce. The safety analyses did not consider the hazards and risks associated with consumer use, use as a component of a transport vehicle or other device, or other uses not associated with transportation in commerce.
   
   c. No party status will be granted to this special permit.

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

5. **REGULATIONS FROM WHICH EXEMPTED:** 49 CFR § 173.185(e) in that the packaging must meet the requirements of part 178 at Packing Group I level or batteries that weigh 12 kg or more.
must have a strong, impact-resistant outer casing.

6. BASIS: This emergency special permit is based on the application of Alevo USA Inc. dated November 15, 2016, submitted in accordance with § 107.117 and a determination that it is necessary to prevent significant economic loss.

7. HAZARDOUS MATERIALS (49 CFR 172.101):

<table>
<thead>
<tr>
<th>Hazardous Material Description</th>
<th>Hazard Class/Division</th>
<th>Identification Number</th>
<th>Packing Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lithium ion batteries</td>
<td>9</td>
<td>UN3480</td>
<td>N/A</td>
</tr>
</tbody>
</table>

8. SAFETY CONTROL MEASURES:

   a. Operational Controls:

      (1) Only prototype lithium ion batteries may be offered for transportation for testing purposes under the terms of this special permit.

      (2) The energy rating of the Gridbank battery consisting of 22 steel storage racks in a containerized system may not exceed 1.2 MWh.

      (3) The Gridbank batteries must be offered for transportation at a state of charge not exceeding 30 percent.

      (4) The Gridbank batteries must be equipped with an effective means of preventing dangerous reverse current flow if a battery contains cells or modules that are connected in parallel.

      (5) The battery management system used in the Gridbank batteries must be capable of preventing overcharge, external short circuits, and over discharge.

      (6) Shipments must be made in dedicated vehicles with no other hazardous materials.
b. Testing: All cells in the Gridbank battery must have passed the tests in accordance with the UN Manual of Tests and Criteria, 5th Revised Edition.

c. Packaging Requirements:

(1) Specially designed 22 steel storage racks that contain modules must be secured within the exterior steel container to prevent the movement of the racks.

(2) The containerized exterior cabinet that holds secured module racks must have non-combustible insulation for roof, floor, walls, and access panels.

(3) The exterior battery container must be securely fastened to prevent short circuit, accidental operation, and significant movement under conditions normally incident to transport.

(4) The net weight of battery in the containerized system may not exceed 45,000 kg.

9. SPECIAL PROVISIONS:

a. Under the terms of this special permit, the grantee may only offer hazardous materials (i.e., the grantee is not authorized as a carrier).

b. 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.

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

d. This special permit in no way affects the need to obtain any required authorizations from other agencies of the United States Government or from the competent authorities of countries of origin, transit and destination.

e. The grantee must maintain a record of all activity conducted under the authority granted in this special permit
and upon request make this information available to DOT representatives or enforcement officials. The record must contain a listing and number of shipments made to include:

(1) Dates of shipment; and

(2) Description of each type of shipment.

10. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle.

11. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each motor vehicle used to transport packages covered by this special permit.

12. 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:

- All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.

- 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.

- 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.

permit to be granted up to two years for new special permits and up to four years for renewals.

13. 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
Acting Associate Administrator for Hazardous Materials Safety


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
Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: SH/kah