Ray C. Minor
HAPCO Pole Products
26252 Hillman Highway
Abingdon, Virginia  24210

Dear Mr. Minor:

This letter is in response to your request for the Federal Highway Administration (FHWA) to review a roadside safety system for eligibility for reimbursement under the Federal-aid highway program.

Name of system: HAPCO 67238A Coupling with 2” washers
Type of system: Breakaway Luminaire Support Coupling
Test Level: NCHRP Report 350 Test Level 3
Testing conducted by: HAPCO
Date of request: April 30, 2012
Date initially acknowledged: May 1, 2012

Decision
The following device is eligible, with details provided in the form which is attached as an integral part of this letter:

- HAPCO 67238A Breakaway Luminaire Support Coupling with 2-inch diameter washers for use on 10-inch, 8-inch and 6-inch diameter poles.

Based on a review of crash test results submitted by the manufacturer certifying the device described herein meets the crash test and evaluation criteria of the National Cooperative Highway Research Program (NCHRP) Report 350, the device is eligible for reimbursement under the Federal-aid highway program. Eligibility for reimbursement under the Federal-aid highway program does not establish approval or endorsement by the FHWA for any particular purpose or use.

The FHWA, the Department of Transportation, and the United States Government do not endorse products or services and the issuance of a reimbursement eligibility letter is not an endorsement of any product or service.
Requirements
To be found eligible for Federal-aid funding, roadside safety devices should meet the crash test and evaluation criteria contained in the National Cooperative Highway Research Program (NCHRP) Report 350 or the American Association of State Highway and Transportation Officials’ Manual for Assessing Safety Hardware (MASH).

Description
The device and supporting documentation are described in the attached form. The 67238A couplings were covered by FHWA Letter LS-74 dated September 9, 2011, when used on 10-inch diameter poles. This request is for the same couplings to be used with 2-inch diameter washers on 8-inch and 6-inch diameter poles as well as on 10-inch diameter poles.

Summary and Standard Provisions
Therefore, the system described herein and detailed in the attached form is eligible for reimbursement and may be installed under the range of conditions tested.

Please note the following standard provisions that apply to FHWA eligibility letters:

- This finding of eligibility does not cover other structural features of the systems, nor conformity with the Manual on Uniform Traffic Control Devices.
- Any changes that may influence system conformance with NCHRP Report 350 criteria will require a new reimbursement eligibility letter.
- Should the FHWA discover that the qualification testing was flawed, that in-service performance reveals safety problems, or that the system is significantly different from the version that was crash tested, we reserve the right to modify or revoke this letter.
- You are expected to supply potential users with sufficient information on design and installation requirements to ensure proper performance.
- You are expected to certify to potential users that the hardware furnished has the same chemistry, mechanical properties, and geometry as that submitted for review, and that it will meet the crash test and evaluation criteria of the NCHRP Report 350.
- To prevent misunderstanding by others, this letter of eligibility is designated as number LS-76 and shall not be reproduced except in full. This letter and the test documentation upon which it is based are public information. All such letters and documentation may be reviewed at our office upon request.
- This letter shall not be construed as authorization or consent by the FHWA to use, manufacture, or sell any patented system for which the applicant is not the patent holder. The FHWA does not become involved in issues concerning patent law. Patent issues, if any, are to be resolved by the applicant.
• The HAPCO couplings are patented products and considered proprietary. If proprietary systems are specified by a highway agency for use on Federal-aid projects: (a) they must be supplied through competitive bidding with equally suitable unpatented items; (b) the highway agency must certify that they are essential for synchronization with the existing highway facilities or that no equally suitable alternative exists; or (c) they must be used for research or for a distinctive type of construction on relatively short sections of road for experimental purposes. Our regulations concerning proprietary products are contained in Title 23, Code of Federal Regulations, Section 635.411.

Sincerely yours,

Michael S. Griffith
Director, Office of Safety Technologies
Office of Safety

Enclosures
Ray C. Minor
HAPCO Pole Products
26252 Hillman Highway
Abingdon, Virginia 24210

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Sincerely yours,

Michael S. Griffith
Director, Office of Safety Technologies
Office of Safety

Enclosures
Request for Federal Aid Reimbursement Eligibility Of Highway Safety Hardware

<table>
<thead>
<tr>
<th>Submitter</th>
<th>Date of Request:</th>
<th>April 30, 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name:</td>
<td>Ray C. Minor</td>
<td></td>
</tr>
<tr>
<td>Company:</td>
<td>Hapco</td>
<td></td>
</tr>
<tr>
<td>Address:</td>
<td>26252 Hillman Highway, Abingdon, VA 24210</td>
<td></td>
</tr>
<tr>
<td>To:</td>
<td>Michael S. Griffith, Director FHWA, Office of Safety Technologies</td>
<td></td>
</tr>
</tbody>
</table>

I request the following devices be considered eligible for reimbursement under the Federal-aid highway program.

<table>
<thead>
<tr>
<th>System Type</th>
<th>Device Name / Variant</th>
<th>Testing Criterion</th>
<th>Test Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>'LS': Breakaway Luminaire Supports</td>
<td>Breakaway Coupling 67238A</td>
<td>NCHRP Report 350</td>
<td>TL3</td>
</tr>
</tbody>
</table>

By submitting this request for review and evaluation by the Federal Highway Administration, I certify that the product(s) was (were) tested in conformity with the AASHTO Manual for Assessing Safety Hardware and that the test / evaluation results meet the appropriate evaluation criteria in the MASH.

Identification of the individual or organization responsible for the product:

<table>
<thead>
<tr>
<th>Contact Name:</th>
<th>Ray C. Minor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company Name:</td>
<td>Hapco</td>
</tr>
<tr>
<td>Address 1:</td>
<td>26252 Hillman Highway</td>
</tr>
<tr>
<td>Address 2:</td>
<td></td>
</tr>
<tr>
<td>City/State/Zip:</td>
<td>Abingdon, VA 24210</td>
</tr>
<tr>
<td>Country:</td>
<td>USA</td>
</tr>
</tbody>
</table>

PRODUCT DESCRIPTION

Modification to Existing Hardware Non-Significant - Effect is positive or Inconsequential

The Hapco 67238A breakaway couplings were tested by Texas Transportation Institute and approved by FHWA (HSST/LS-74) with the couplings attached to the bottom of the pole base using 1/2" thick x 2 3/4" diameter steel washers on the top of the pole base. This modification is to use washers of 1/2" thick x 2" diameter instead of the 1/2" thick x 2 3/4" diameter.

CRASH TESTING

A brief description of each crash test and its result:
<table>
<thead>
<tr>
<th>Required Test Number</th>
<th>Narrative Description</th>
<th>Evaluation Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>S3-60 (700C)</td>
<td>Hapco-6in Test, 4/19/2012, Reported in &quot;Hapco Pendulum Tests Of 67238A Breakaway Coupling With 6&quot; And 8&quot; Poles&quot;, 4/24/2012 Justification is use 2&quot; diameter washers to fit pole bases of smaller size than were originally tested.</td>
<td>PASS</td>
</tr>
<tr>
<td>S3-60(700C)</td>
<td>Hapco-8in Test, 4/16/2012, Reported in &quot;Hapco Pendulum Tests Of 67238A Breakaway Coupling With 6&quot; And 8&quot; Poles&quot;, 4/24/2012 Justification is to use 2&quot; diameter washers to fit pole bases of smaller size than were originally tested.</td>
<td>PASS</td>
</tr>
</tbody>
</table>

Full Scale Crash Testing was done in compliance with MASH by the following accredited crash test laboratory (cite the laboratory’s accreditation status as noted in the crash test reports.):

<table>
<thead>
<tr>
<th>Laboratory Name:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Laboratory Contact:</td>
<td></td>
</tr>
<tr>
<td>Address:</td>
<td></td>
</tr>
<tr>
<td>Country:</td>
<td></td>
</tr>
<tr>
<td>Accreditation Certificate Number and Date:</td>
<td></td>
</tr>
</tbody>
</table>

**ATTACHMENTS**

Attach to this form:

1) A copy of the Test Data Summary Sheet for each test conducted in support of this request.
2) A drawing or drawings of the device(s) that conform to the Task Force-13 Drawing Specifications [Hardware Guide Drawing Standards]. For proprietary products, a single isometric line drawing is usually acceptable to illustrate the product, with detailed specifications, intended use, and contact information provided on the reverse. Additional drawings (not in TF-13 format) showing details that are key to understanding the performance of the device should also be submitted to facilitate our review.

**FHWA Official Business Only:**

<table>
<thead>
<tr>
<th>Eligibility Letter</th>
<th>AASHTO TF13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>Date</td>
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<td></td>
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