



October 11, 2017

Standards and Rulemaking Division  
Pipeline and Hazardous Materials Safety Administration  
Attn: PHH-10  
U.S. Department of Transportation  
East Building, 1200 New Jersey Avenue, SE.  
Washington, DC 20590-0001

Re: Petition for Rulemaking to Update the IME Address Provided in 49 CFR 171.7(r) and to Incorporate the 2017 IME/AESC JPG Standard into the Hazardous Materials Regulations Related to Approval of Explosive Materials

To Whom It May Concern:

Pursuant to 49 CFR 106.95, the Institute of Makers of Explosives (IME) submits this Petition for Rulemaking (Petition) to update its address provided in 49 CFR 171.7(r) and, jointly with the Association of Energy Service Companies (AESC), to incorporate by reference into the Hazardous Materials Regulations (HMR) the IME/AESC JPG Standard, more formally known as the "Guide to Obtaining DOT Approval of Jet Perforating Guns using AESC/IME Perforating Gun Specifications", Ver. 02, dated September 1, 2017.

Interest of IME & AESC

IME represents U.S. manufacturers and distributors of commercial explosive products, including blasting agents and oxidizers, as well as other companies that provide services to the industry. IME's mission is to promote safety and the protection of employees, users, the public and the environment; and to encourage the adoption of uniform rules and regulations in the manufacture, transportation, storage, handling, use and disposal of explosive materials used in blasting and other essential operations. IME members manufacture virtually all explosive components and the majority of perforating gun hardware, which are assembled into jet perforating guns (JPG) and transported in the United States.

AESC represents numerous U.S. wireline/well logging companies involved in the upstream oil and gas industry. Its members are end users of explosive products such as

shaped charges and other explosives materials, and the loaded JPGs that are the subject of this request. AESC member companies will typically load the JPGs in their shop, transport them to the well site, and use them in downhole applications to perforate casing/tubing to allow fluids/gases to flow into the wellbore and be produced uphole.

#### Correction of IME address provided in 49 CFR 171.7(r)

Certain IME standards are incorporated by reference (IBR) into the HMR as indicated by 49 CFR 171.7(r). IME recently relocated to new offices and its address has changed from that shown therein. Therefore, IME requests rulemaking to correct the introductory text of 49 CFR 171.7(r) as shown below<sup>1</sup>:

(r) *Institute of Makers of Explosives*, ~~1120 19th Street NW., Suite 310~~  
1212 New York Ave., NW, Suite 650, Washington, DC 20036-360520005.

#### Incorporation of the IME/AESC JPG Standard into the HMR

Prior to 2008, PHMSA, IME, and AESC jointly developed a standard set of specifications and user guidelines to facilitate the approval of JPG assemblies. That standard (2008 standard) was completed and accepted by PHMSA for policy-based approval of qualifying JPG systems on November 19, 2008 (Attachment 1). The intent was to use the 2008 standard in the approval of JPGs for a period of time and after an acceptable period of use, to update the 2008 standard and to submit it for IBR into the HMR, much the same as APA Standard 87-1 is used for the classification and approval of certain fireworks<sup>2</sup>.

Subsequent to its acceptance and placement into use by PHMSA in late 2008, some 326 JPG approvals (UN0124, 1.1D) have been issued by PHMSA based upon the 2008 standard. During the same time period (2008 to present), the safety record of JPG transportation is exceptional -- there have been zero reported incidents involving UN0124 classed JPGs<sup>3</sup>.

In October 2016, PHMSA advised IME and AESC that it was ready to entertain a rulemaking request for the IBR of the IME/AESC JPG Standard into the HMR and encouraged the two associations to make certain revisions to better clarify the applicability of the standard and to update appropriate specifications. The associations completed this work in 2017 and Ver. 02, dated September 1, 2017 (Attachment 2) is the result. Therefore, IME and AESC jointly request rulemaking to IBR the IME/AESC JPG Standard into the HMR as follows:

<sup>1</sup> ~~Stricken text~~ indicates text to be corrected and underscored text, replacement text for that stricken.

<sup>2</sup> 49 CFR 171.7(f)(1), 173.56(b), 173.64, and 173.65.

<sup>3</sup> Since DOT began collecting incident data in the 1970s, there have been zero reported incidents involving UN0124 classed JPGs.

1. Add new subparagraph (3) to 49 CFR 171.7(r) to describe the document that is included by reference as follows:

*(3) IME/AESC JPG Standard, Guide to Obtaining DOT Approval of Jet Perforating Guns using AESC/IME Perforating Gun Specifications, Ver. 02, dated September 1, 2017.*

2. Amend 49 CFR 173.56(b) to add an exception for JPGs referring to new section 173.67 (see 3 below) as follows<sup>4</sup>:

*(b) Examination, classification and approval. Except as provided in §§173.64, ~~and 173.65, and 173.67~~, no person may offer a new explosive for transportation unless that person has specified to the examining agency the ranges of composition of ingredients and compounds, showing the intended manufacturing tolerances in the composition of substances or design of articles which will be allowed in that material or device, and unless it has been examined, classed and approved as follows:*

3. Add new section 173.67 as follows:

***§173.67 Exceptions for Division 1.1 jet perforating guns.***

*(a) Notwithstanding the requirements of §173.56(b), Division 1.1 jet perforating guns may be classed and approved by the Associate Administrator without prior examination and offered for transportation if the following conditions are met:*

*(1) The jet perforating guns are manufactured in accordance with the applicable requirements in IME/AESC JPG Standard (IBR, see §171.7(r)(3) of this subchapter);*

*(2) The jet perforating gun must be of a type described in the IME/AESC JPG Standard;*

*(3) The applicant applies in writing to the Associate Administrator following the applicable requirements in the IME/AESC JPG Standard, and is notified in writing by the Associate Administrator that the jet perforating gun has been classed, approved, and assigned an EX number. Each application must be complete and include all relevant background data, the applicable drawings, and any other pertinent information as described in the IME/AESC JPG Standard on each jet*

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<sup>4</sup> ~~Stricken text~~ indicates text to be corrected and underscored text, replacement text for that stricken

*perforating gun for which approval is being requested. The manufacturer must sign the application and certify that the jet perforating gun for which approval is requested conforms to the IME/AESC JPG Standard and that the descriptions and technical information contained in the application are complete and accurate. If the application is denied, the applicant will be notified in writing of the reasons for the denial. The Associate Administrator may require that the jet perforating gun be examined as provided under §173.56(b)(1).*

*(b) [Reserved]*

### Benefits

JPGs are essential to oil and gas production. In support of these critical domestic industries, millions of JPGs are transported annually. Each JPG must be approved by PHMSA. It is expected that new service companies will enter the market and require approvals from PHMSA. In addition, existing service companies will likely expand their lines of available JPGs and may require additional approvals. Over a period of nine years, PHMSA utilization of the IME/AESC JPG Standard for policy-based approvals of JPGs has significantly reduced the processing burden on PHMSA and affected service companies without compromising the level of safety afforded by the HMR.

### Non-federal Preemption Effects

A foundational principle of Federal Hazardous Materials Transportation Law (FHMTL) is that the uniformity of requirements for the transportation of hazardous materials enhances safety and security. In recognition of this fact, Congress has provided several preemption standards to ensure regulatory uniformity. Among these standards is authority to preempt certain non-federal requirements that are not “substantively the same as” a requirement of FHMTL or a regulation promulgated under that law. The changes requested by this Petition trigger two of the regulatory subject areas covered by this “Substantively the Same As” preemption authority, namely the classification of hazardous materials, and how such materials will be packaged and handled in transportation.<sup>5</sup> These areas of regulation are the prerogative of the Federal Government.

### Burden on Small Business

The changes requested in this Petition would provide regulatory relief for small businesses.

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<sup>5</sup> 49 U.S.C. 5125(b)(1)(A) & (B).

### Recordkeeping/Reporting Burden

We do not foresee any additional recordkeeping or reporting burdens stemming from the actions requested in this Petition.

### Environmental Effects

We do not foresee any adverse environment effects stemming from the actions requested in this Petition.

### Conclusion

The regulatory relief anticipated from the changes requested in this Petition will not adversely affect the safety or security of JPGs while in transportation and will reduce regulatory burdens and costs consistent with Executive Order 13563.<sup>6</sup>

### Contact Information

Please address inquiries and correspondence related to this rulemaking request to:

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Godley, TX 76044-0765  
Tel (direct): 817-551-6494 x 1005  
Fax: 817-302-0499  
Email: david.boston@corelab.com

Thank you for your consideration.

Sincerely,



Debra S. Satkowiak  
President  
Institute of Makers of Explosives



Kenny Jordan  
Executive Director  
Association of Energy Service Companies



David W. Boston  
Chair, IME PHMSA Subcommittee  
President, Owen Compliance Service, Inc.

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<sup>6</sup> May 10, 2012.

Attachments:

1 – PHMSA letter of November 19, 2008 accepting for use of the AESC/IME Perforating Gun Specifications in approval process for the classification of JPGs.

2 – IME/AESC JPG Standard, Guide to Obtaining DOT Approval of Jet Perforating Guns using AESC/IME Perforating Gun Specifications, Ver. 02, dated September 1, 2017.