U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, D.C. 20590

MAR 5 2008

Mr. Albert Calkin
Transportation Safety Consultant
Innovative Safety Solutions, Inc.
3310 Baldy Drive
Helena, MT 59602-9568

Ref. No.: 07-0219

Dear Mr. Calkin:

This responds to your November 2, 2007 letter requesting clarification on testing MC 330 or MC 331 cargo tank motor vehicles under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). Specifically, you ask for interpretation of the requirement for conducting wet fluorescent magnetic particle examination in conjunction with the performance of the pressure test of MC 330 and MC 331 cargo tank motor vehicles as specified in §180.407(g)(3) of the HMR.

Section 173.315, Note 15 states that MC 330 and MC 331 cargo tanks constructed of other than quenched and tempered steel (NGT) are authorized for all grades of liquefied petroleum gases (LPG). Only grades of LPG determined to be "noncorrosive" are authorized in Specification MC 330 and MC 331 cargo tanks constructed of quenched and tempered steel (QT). "Noncorrosive" means the corrosiveness of the gas does not exceed the limitations for classification 1 of the ASTM Copper Strip Classifications when tested in accordance with ASTM D 1838, "Copper Strip Corrosion by Liquefied Petroleum (LP) Gases".

Each MC 330 and MC 331 cargo tank transporting LPG, constructed of quenched and tempered steel or constructed of other than quenched and tempered steel without postweld heat treatment, must be internally inspected by the wet fluorescent magnetic particle method immediately prior to and in conjunction with the performance of the pressure test prescribed in §180.407(g)(3).

I hope this answers your inquiry.

Sincerely,

John A. Gale
Chief, Standards Development
Office of Hazardous Materials Standards

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§180.407(g)(3)
Cargo Tanks
07-0219

November 2, 2007

U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration
Office of Hazardous Materials Safety
1200 New Jersey Avenue, SE East Building, 2nd Floor
Washington, DC 20590

RE: Request for Interpretation

Dear Sir.

I am requesting a written interpretation of the requirement for conducting wet fluorescent magnetic particle examination in conjunction with the performance of the pressure test of MC 330 or MC 331 cargo tank motor vehicles as shown in 49 CFR 180.407(g)(3).

Paragraph three reads in part that Each MC 330 and MC 331 cargo tank constructed of quenched and tempered steel in accordance with Part UHT in Section VIII of the ASME Code (IBR, see §171.7 of this subchapter), or constructed of other than quenched and tempered steel but without postweld heat treatment, used for the transportation of anhydrous ammonia or any other hazardous materials that may cause corrosion stress cracking, must be internally inspected by the wet fluorescent magnetic particle method immediately prior to and in conjunction with the performance of the pressure test prescribed in this section.

The second sentence of paragraph three addresses the testing of Each MC 330 and MC 331 cargo tank constructed of quenched and tempered steel in accordance with Part UHT in Section VIII of the ASME Code and used for the transportation of liquefied petroleum gas.

Specifically, MC 330 and MC 331 Cargo tanks constructed of quenched and tempered steel, which transport liquefied petroleum gas, is addressed in sentence 2, but that sentence fails to address liquefied petroleum gas transported in MC 330 and MC 331

cargo tanks constructed of other than quenched and tempered steel but without postweld heat treatment.

The first question that needs to be answered is how I determine if a hazardous material "may cause corrosion stress cracking". Specifically, does liquefied petroleum gas fall into the category, that it may cause corrosion stress cracking.

The second question is if liquefied petroleum gas does fall into the category that it may cause corrosion stress cracking, then are MC 330 and MC 331 cargo tanks constructed of other than quenched and tempered steel but without postweld heat treatment required to be internally inspected by the wet fluorescent magnetic particle method immediately prior to and in conjunction with the performance of the pressure test prescribed in this section.

I believe that although all liquefied petroleum gas does cause corrosion stress cracking, some shipments of liquefied petroleum gas may cause corrosion stress cracking. Subsequently, MC 330 and MC 331 cargo tanks constructed of other than quenched and tempered steel but without postweld heat treatment that transport liquefied petroleum gas are required to be internally inspected by the wet fluorescent magnetic particle method immediately prior to and in conjunction with the performance of the pressure test prescribed in this section.

I look forward to receiving a written interpretation regarding this matter as soon as possible, as test and inspection facilities and cargo tank motor carriers are not handling this matter in the same method and clarification of this requirement of the regulations is necessary to ensure compliance in all instances.

Sincerely,

Albert Calkin
Transportation Safety Consultant