



U.S. Department of Transportation
Pipeline and Hazardous Materials
Safety Administration

1200 New Jersey Avenue, SE
Washington, DC 20590

DEC 2 2009

Mr. Lee Howard
Program Manager
Lighting Eliminators &
Consultants, Inc.
6687 Arapahoe Road
Boulder, Colorado 80303

Ref. No.: 09-0253

Dear Mr. Howard:

This responds to your letter dated November 2, 2009, regarding the requirements in the Hazardous Materials Regulation (HMR; 49 CFR Parts 171-180) applicable to a small electric powered generator run by gasoline in a fuel tank having a capacity of less than one gallon. According to your letter, the motor or internal combustion engine within the generator is similar to that of a lawn mower. The generator operates test equipment used to perform surveys in remote locations. You plan to ship the generator on/in a standard wooden pallet or a shipping case on a commercial freight truck (e.g., DHL, Fed EX, etc.) for transportation by highway.

Mechanical equipment containing an internal combustion engine and a flammable liquid fuel tank, such as your motorized small electric powered generator, is subject to the requirements of the HMR when transported as cargo on a motor vehicle, rail car, vessel or aircraft (see § 173.220(a)). For transportation by motor vehicle or rail car, provided the fuel tank is securely closed, the mechanical equipment is not subject to any other requirements under the HMR (e.g., shipping papers, labeling, marking, placarding, or emergency response information). Fuel may remain in engines and fuel tanks when transported by highway or rail (see § 173.220(b)(4) and (g)(1) and (2)).

I hope this information is helpful. If we can be of further assistance, please contact us.

Sincerely,

Charles E. Betts
Chief, Standards Development
Office of Hazardous Materials Standards

Engram
§173.220
Engines

09-0253

Drakeford, Carolyn (PHMSA)

From: INFOCNTR (PHMSA)
Sent: Monday, November 02, 2009 2:10 PM
To: Drakeford, Carolyn (PHMSA)
Subject: FW: Request for Formal Letter

From: Lee Howard [mailto:LEE@LightningEliminators.com]
Sent: Monday, November 02, 2009 9:38 AM
To: INFOCNTR (PHMSA)
Subject: Request for Formal Letter

Dear reader,

Recently I have been in discussion with members of the Hazardous Materials Information Center office to answer/clarify a question I had regarding the transportation of gasoline within a electric power generator. I have a small electric power generator that runs on gasoline - the fuel tank's capacity is less than 1 gallon. The motor within the generator would be similar to that of a lawn mower. I am an electrical engineer and the generator will be used to run test equipment when I am performing surveys in remote locations. The question I have regards the shipping of the generator to the test sites with fuel in the tank. At this point I would like to place the generator on/in a standard wood pallet, or a shipping case and ship it, over the road, via a freight truck i.e. DHL, Fed Ex, etc, to the sites.

In reviewing 49 CFR, I believe part 173.220 is relevant: **"Internal combustion engines, self-propelled vehicles, mechanical equipment containing internal combustion engines, and battery powered vehicles or equipment."** My question, more directly, is section (b) **"Requirements"**, paragraph (4) **"Modal exceptions"**: where it generally states that quantities of flammable liquid fuel greater than 500 ml may remain in the mechanical equipment (i.e. I do not need to drain the fuel tank and fuel lines) when being transported by motor vehicle or rail car.

The definition of "motor vehicle" then became important and was found in part 171 **" General information, regulations and definitions..."** in short the definition states "Motor vehicle includes a vehicle, machine, tractor, trailer, or semitrailer, or any combination thereof, propelled or drawn by mechanical power and used upon the highways in the transportation of passengers or property..."

It is my interpretation then, that the over the road shipment of the generator, in a pallet or case, via a national carrier such as DHL, with or without fuel in the fuel tank meets 49 CFR and is therefore permissible. I reviewed my interpretation with a Hazardous Materials Information Center representative, named Victoria, when I called 800.447.4922. Victoria came to the same conclusion I had and our conversation ended. The Logistics Manager of our company was surprised and asked me to get it writing... So, after another phone call and receipt of an e-mail address, here I am asking you to review the sections listed above in anticipation of a formal letter from your office essentially stating that based on the method of shipping, that a freight truck is considered a "motor vehicle" and that shipment of the generator with or without fuel, via a freight truck is permissible.

I thank you for your patience in reading my long-winded explanation and I look forward to your response.

Regards,

Lee Howard
Program Manager

R&D / Smart Ground

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