



U.S. Department  
of Transportation

Pipeline and Hazardous Materials  
Safety Administration

1200 New Jersey Ave., SE  
Washington, DC 20590

JAN 27 2009

Mr. Christopher P. Prioli  
SJ Transportation Co., Inc.  
P.O. Box 169  
1176 U.S. Route 40  
Woodstown, NJ 08098

Ref. No. 09-0006

Dear Mr. Prioli:

This responds to your December 18, 2008 letter and telephone discussions with a member of my staff regarding the applicability of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) to the transportation of used transformers, rectifiers, and insulating bushings containing PCB's. Specifically, you ask how these items should be described on the U.S. Environmental Protection Agency (EPA) Form 8700-22, Uniform Hazardous Waste Manifest (UHW), in terms of type of container. In addition, you ask whether choosing TP (portable tank) on a UHW would comply with the HMR shipping paper requirements for these items.

The EPA regulates the UHW, and we cannot answer questions or make interpretations on how best to complete the form. Your questions should be directed to the appropriate EPA Office, including any petitions for changes to EPA regulations or forms.

With respect to whether the abbreviation "TP" on the UHW satisfies the HMR shipping paper requirements for these PCB contaminated transformers, the answer is no. In accordance with § 172.202(a)(7), a shipping paper must include an indication of the number and type of packages being transported. The abbreviation "TP" which stands for "portable tank," does not accurately describe the stand-alone articles you are shipping. If the UHW is being used to comply with the HMR shipping paper requirements concerning the number and type of packages, we suggest including further appropriate information (e.g., "4 Transformers") as needed (see Special Provision 81; § 172.102), in Item 14 – Special Handling Instructions & Additional Information, in addition to any other information EPA requires in Item 14. As an alternative, you could create a separate shipping paper meeting all the requirements of Part 172 Subpart C, and transport it along with the UHW.

I trust this satisfies your inquiry. Please contact us if we can be of further assistance.

Sincerely,

Hattie L. Mitchell  
Chief, Regulatory Review and Reinvention  
Office of Hazardous Materials Standards



P.O. Box 169  
1176 U.S. Route 40  
Woodstown, NJ 08098

Nickels  
3171.8  
Definition  
09-0006

(856)769-2741  
(800)524-2552  
Fax (856)769-4248  
Fax (856)769-9811  
www.sjtransportation.com

18 December 2008

Mr. Edward T. Mazzullo  
Director, Office of Hazardous Materials Standards  
US DOT / PHMSA (PHH-10)  
1200 New Jersey Avenue, SE East Building, 2<sup>nd</sup> Floor  
Washington, DC 20590

RE: Container Type Designation on 8700-22 Uniform Hazardous Waste Manifest

Dear Mr. Mazzullo:

I am seeking guidance on the selection of appropriate container type designations for some general types of used electrical equipment when such equipment is shipped on the Uniform Hazardous Waste Manifest, USEPA Form 8700-22. The equipment being shipped includes used transformers, rectifiers, regulators, and insulating bushings. Many of these devices contain (or contained) PCB oil in various concentrations. Please refer to the accompanying photographs for representative examples of the equipment.

Whereas I am aware that DOT takes a generally broad interpretation of shipping container descriptions for shipping papers, the Uniform Hazardous Waste Manifest restricts the shipper to a limited selection of container type abbreviations. The available abbreviations, as listed below, are found in the Appendix to 40 CFR §262:

BA – Burlap, cloth, paper or plastic bags	DT – Dump truck
CF – Fiber or plastic boxes, cartons, cases	DW – Wooden drums, barrels, kegs
CM – Metal boxes, cartons, cases (including roll-offs)	HG – Hopper or gondola cars
CW – Wooden boxes, cartons, cases	TC – Tank cars
CY – Cylinders	TP – Portable tanks
DF – Fiberboard or plastic drums, barrels, kegs	TT – Cargo tanks (tank trucks)
DM – Metal drums, barrels, kegs	

With the above-listed abbreviations being the only approved entries permitted for Item 10 on the Uniform Hazardous Waste Manifest, I am faced with the need to obtain definitive guidance regarding the proper container type abbreviations to use for the equipment being shipped. In the past, some shippers have used the "TP" designation for transformers of

various styles and sizes. My understanding is that this designation would not be correct for items of the types involved here, based upon the 49 CFR §171.8 definition of a portable tank. That definition states that a portable tank is a *“bulk packaging... designed primarily to be loaded onto, or on, or temporarily attached to a transport vehicle... and equipped with skids, mountings or accessories to facilitate handling of the tank by mechanical means.”* My contention is that most transformers and similar electrical equipment cannot meet this definition for the following reasons:

- these devices will very rarely meet the 49 CFR §171.8 defining criteria for bulk packagings in terms of liquid capacity;
- these devices are not designed “primarily to be loaded onto, or on, or temporarily attached to a transport vehicle”; and
- these devices are not inherently tank-like in design or purpose.

There are basically two types of electrical devices about which I have concerns – pole-mount types and pad-mount types. Typically, pole-mount transformers (Figure 1 below) are generally cylindrical in overall shape, often having flat bottoms and slightly convex upper ends, usually with insulating bushings protruding from either the top surface or through the cylinder’s side wall, and sometimes with cooling fins or panels attached to the outer circumference. The liquid capacity of these devices will vary by the size of the unit, but will generally not meet the 119-gallon threshold for “bulk” designation. Based upon the general shape of these units, the limited options provided by 40 CFR §262, and the fairly “open” definition of “drum” found in 49 CFR §171.8, I have concluded that “DM” would be the most appropriate container type designator for these items when shipped on EPA Form 8700-22.

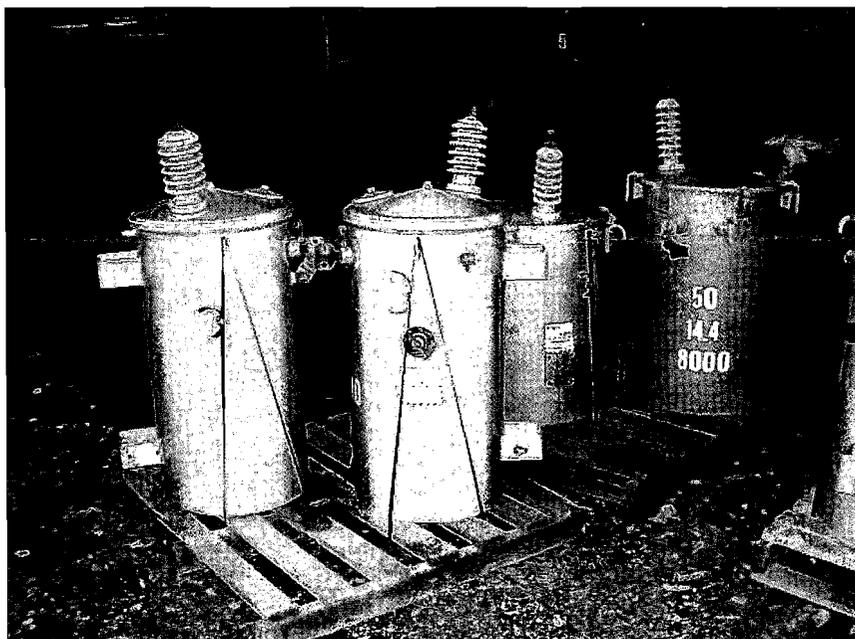
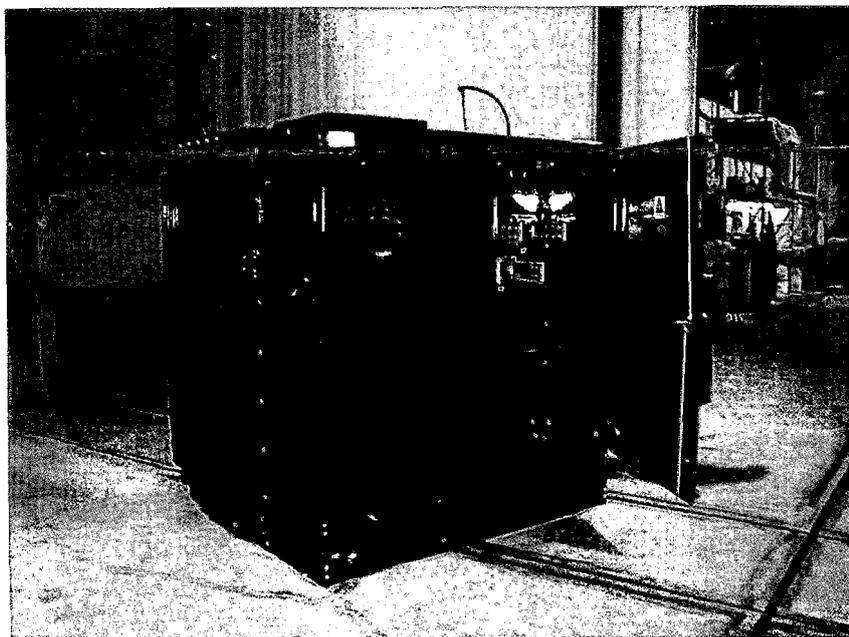


Figure 1 – Pole-mount Transformers

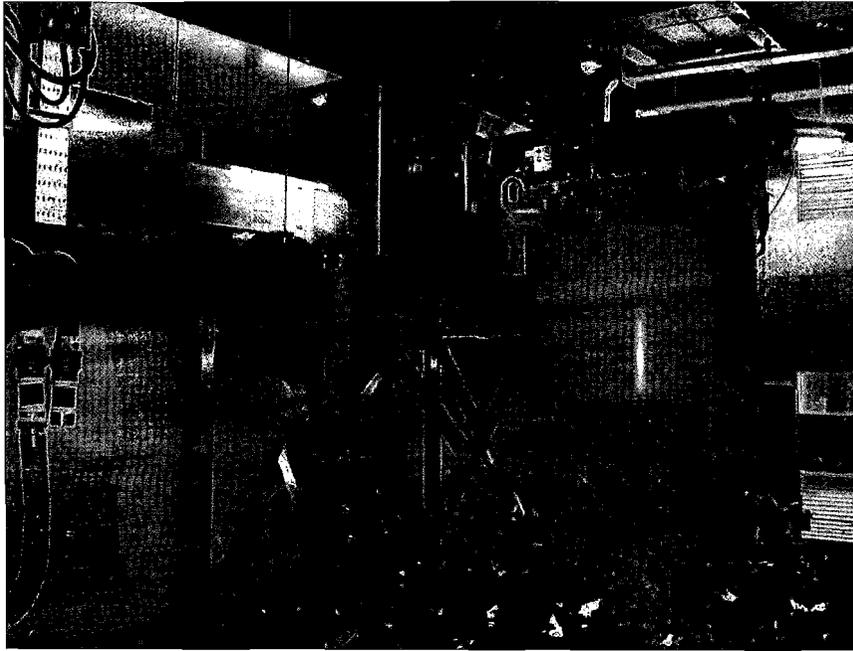
Pad-mount devices can have a physical shape similar to that of the pole-mount units described above, or they can be generally box-like in shape and structure. Some of these units will meet the 119-gallon “bulk” threshold, but many others will not. In either case, the defining criteria for portable tanks are not met. These devices may be any one of several different device types, but all are designed to be secured to a concrete pad or footing via fixtures on their bases. Figure 2 below shows a typical small pad-mount transformer while Figures 3 and 4 depict two different large pad-mount models. Figure 5 illustrates a rectifier unit and Figure 6 is that of a regulator unit. As the photographs show, none of these units can rightly be classed as portable tanks.



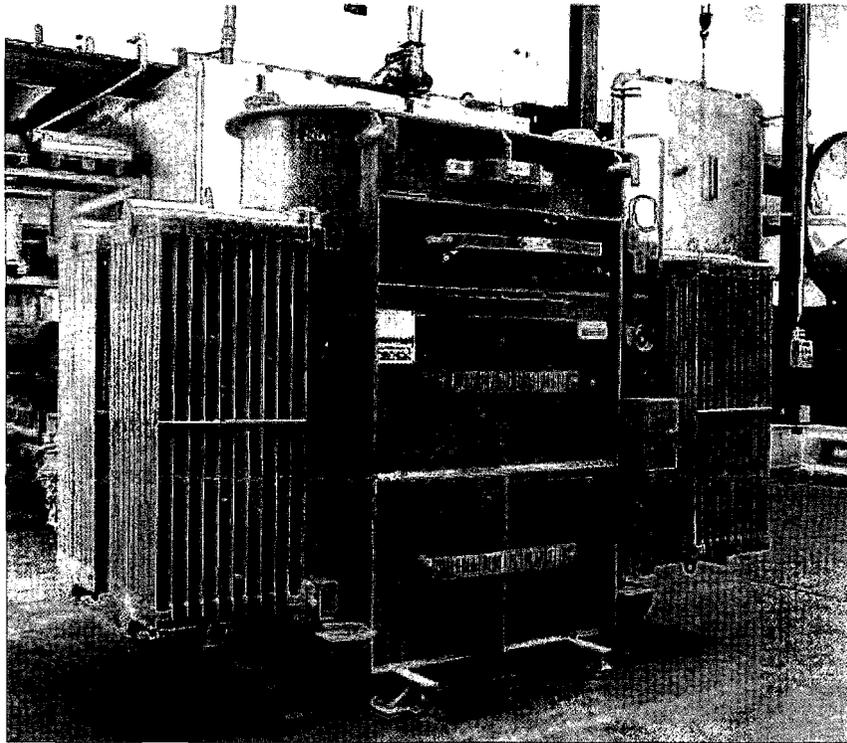
*Figure 2 – Small Pad-mount Transformer*



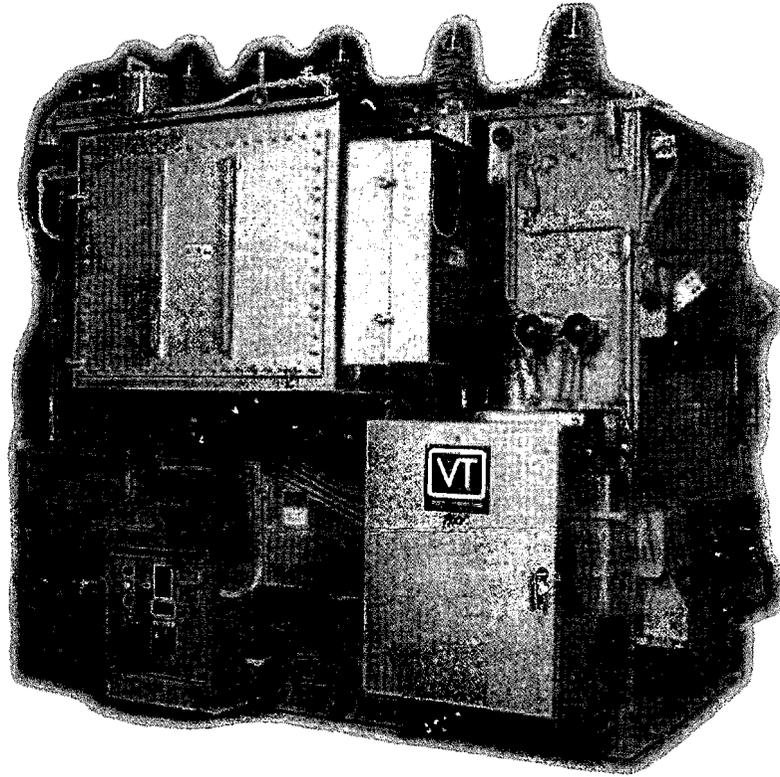
*Figure 3 – Large Pad-mount Transformer (Cabinet)*



*Figure 4 – Large Pad-mount Transformer (Cylindrical)*



*Figure 5 – Large Pad-mount Rectifier*

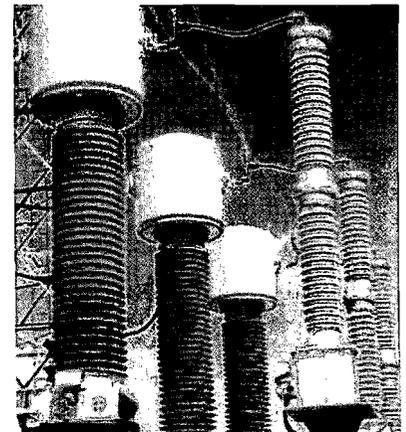


*Figure 6 – Large Pad-mount Regulator*

The interior spaces of each of these devices is largely filled with coils of wire, core material, switches and/or other components, with the relatively small remaining space being filled with dielectric oil. In most cases, the only accessories present that would be considered as being intended to "facilitate handling... by mechanical means" would be the lifting hooks or eyes that are often attached to the units. It should be noted that engines for cars and trucks are also equipped with lifting eyes or hooks, but they are no more considered portable tanks than these units should be.

I believe that the cylindrically-shaped pad-mount devices should be designated as "DM" containers, as that is the closest of the defined container types to the actual physical structure of these devices. By the same reasoning, I believe that the remaining pad-mount devices illustrated herein should be designated as "CM" containers.

Another type of used electrical equipment that we deal with is an insulating device called a "bushing". These are generally large stand-off insulators such as those shown in Figure 7 at right. These devices are naturally the most difficult to classify, as there is really no appropriate container type defined in 40 CFR §262. As before, these devices will generally contain a limited volume of dielectric oil. Most bushings are ceramic or porcelain in construction and can be of various lengths and diameters, though they will rarely if ever reach the 119-gallon "bulk" threshold as containers for liquids.



*Figure 7 – Insulating Bushings*

It is quite obvious that the insulating bushings cannot be even remotely construed as being portable tanks. It is much more difficult to select an appropriate container type designation for these devices, however. Their design and construction preclude inclusion in any of the container types defined in 40 CFR §262.

One other point to consider is that Special Provision 81 (49 CFR §171.102) specifically provides for the shipment of certain PCB articles, when the use of a specification container is impractical, in non-specification packages or through the use of the article itself as the package. This is the justification for shipping these devices without any specific kind of inclusive packaging.

To summarize, I am specifically seeking formal written guidance regarding the proper and correct container type abbreviations for use on the Uniform Hazardous Waste Manifest (Form 8700-22) as regards the various device types discussed herein and as listed below:

1. Transformers and other similar PCB devices having a generally cylindrical overall shape;
2. Transformers and other similar PCB devices having a generally box-like overall shape; and
3. Insulating bushings constructed of ceramic or porcelain materials.

Despite my best efforts, I was unable to obtain conclusive guidance on this issue from the USEPA. In fact, I was instructed to direct this issue to your office for an answer, as much of the answer would likely be based upon USDOT definitions and interpretations.

I look forward to hearing from you in the near future, and I hope that you will be able to provide the guidance that I need.

Sincerely,



Christopher P. Prioli  
Safety & Compliance Manager