



U.S. Department
of Transportation

**Research and
Special Programs
Administration**

400 Seventh Street, S.W.
Washington, D.C. 20590

JAN 9 1998

Mr. Robert A. Robbins, QAR
Defense Contracts Management Command
C/O Raloid Corp.
109 Wabash Ave.
Reisterstown, MD 21136

Dear Mr. Robbins:

This is in response to your letter of December 1, 1997 concerning undeclared shipments of self-propelled vehicles that may be transported by aircraft under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180).

The broad exceptions provided in § 173.220 for self-propelled vehicles do not negate their designation as a hazardous material. The HMR requires that persons who offer for transportation or transport self-propelled vehicles in commerce must be made aware of the hazards they pose and comply with all appropriate requirements in the HMR to assure their safe transportation.

In a June 14, 1996 notice published in the Federal Register (copy enclosed), this Office provided advisory guidance to persons involved in the transportation of hazardous materials to ensure that hazardous materials are properly identified, packaged, authorized for transportation, handled, loaded and transported in conformance with the HMR. The purpose of this notice is to alert shippers and carriers to the hazards posed by undeclared shipments and to raise in part the awareness of persons like "packagers" in recognizing those threats and taking appropriate measures to assure compliance with the HMR.

If you believe the HMR should be revised to better address requirements for self-propelled vehicles, you may submit a petition for rulemaking as provided in § 106.31. I hope that this information is helpful. If you need further assistance, please contact us.

Sincerely,

Thomas G. Allan

Deputy Director

Office of Hazardous Materials Standards

Enclosure



DEFENSE CONTRACTS MANAGEMENT COMMAND

DCMC Baltimore, DCMDE-GTEC
Government QAR / R. Robbins
c/o Raloid Corp.
109 Wabash Ave.
Reisterstown, MD 21136

*Polymers
File 173.220
SC*



IN REPLY
REFER TO: DCMDE-GTEC

December 1st, 1997

MEMORANDUM FOR U.S. Department of Transportation,
Research and Special Programs Administration
Office of Hazardous Materials Standards
ATTN: Mr. Thomas Allan, Deputy Director

SUBJECT: Follow-Up On Some Problems With 49 CFR, sec. 173.220

This is to follow-up on a letter I wrote to you early this year about the provisions of 49 CFR, sec. 173.220, - AS WRITTEN.

In February 1997, I wrote you about my concerns; - particularly those where items could be prepared per 173.220 and allow some hidden situations (see attached).

Since that time, - one small change was made to the provisions of 173.220. But, - I didn't receive anything in writing from you / your related offices, - and the changes made to 173.220 will still allow hidden HAZMAT shipments.

I strongly feel that changes should be made for items shipped in boxes or freight containers, - especially since those are allowed by sec. 173.220 to be prepared / transported without HM shipping papers, marking or labeling; - unless they just happen to initially be prepared for aircraft or vessel.

Although items prepared / shipped per 173.220 are hazardous; - too many people show that they don't readily understand / apply provisions correctly. And, - the provisions of 173.220 allow often undisclosed / hidden hazards.

Later, - some shipments could be put in cargo holds of passenger aircraft; - while possibly containing many gallons of (undisclosed) flammable fuel. Some of those could result in dire situations like Valu-Jet or TWA in 1996.

A written reply is requested. If you have any questions, please call me. If you're unable to contact me, - please leave a message.

Information: GTE / F. DiMeo
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DEFENSE CONTRACTS MANAGEMENT COMMAND

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IN REPLY
REFER TO: DCMDE-GTEC

February 20th, 1997

MEMORANDUM FOR U.S. Department of Transportation,
Research and Special Programs Administration
Office of Hazardous Materials Standards
ATTN: Mr. Thomas Allan, Deputy Director

SUBJECT: Some Problems With 49 CFR, sec. 173.220 , - AS WRITTEN

The purpose of this is to identify some problems noted in the field with shipments of some items under the provisions of 49 CFR, sec. 173.220 .

First, - let me say " *Thanks again* " for meeting with the three of us from Baltimore DCMC; - working with us in late 1996, on the previous related issues (fuel tank vents and 173.220), - and providing written replies.

As you're aware, - I met with you on November 5th, at your headquarters, - along with some other associates from both of our offices. We reviewed and discussed shipments of some *Engines, internal combustion, including when fitted in machinery or vehicles* -- as well as, - the many referenced and related portions of the CFR provisions to those.

Two Inter-Related Issues Seem To Result In Misunderstanding And Confusion

For the issues at hand; - there appears to be several problems with understanding and applying the provisions of sec. 173.220, - *as written*.

1. Is for shipping Engines, internal combustion , - fitted in a vehicle.
2. Is more complicated, when those are shipped in freight containers .

As we discussed before, -- some of the provisions of 49 CFR, sec. 173.220 appear as poorly written. People have some difficulty in application of the *intent* of the CFR; - *because some of 173.220, - as it's written , - doesn't seem to clearly say what (you said) it means !*

Specifically, - some packaging and/or shipping people have shown misunderstanding and then misapplying the packaging and exception provisions of sec. 173.220. Some people consider items under 173.220 as *excepted from the HMR provisions entirely* , -- if they follow and use sec. 173.220.

There have been many varied understandings and opinions given recently. Some of these *appear* to have led to improper packagings , - improper offering for transportation ; - and improper transportation of same.

For Shipping Engines, Internal Combustion, - Fitted In A Vehicle

- a. The provisions in the first part of 173.220, - such as; (b)(1):
 Don't *clearly* state , or - otherwise *clearly* indicate that; -
 Fuel tanks for transportation by highway or rail car , -
 don't have to be drained (first), - but may have some fuel, -
 up to the normal filling point (or, - as otherwise appropriate).
- * As written, - those provisions of 173.220 appear to state or indicate that the fuel tanks should be drained (first), - then one should apply the other provisions, -- as applicable.
- ** The provisions of 173.220(b)(1) appear as misleading and confusing. Some packagers and/or shippers don't readily understand or apply those provisions of 173.220(b)(1) correctly. As written, 173.220(b)(1) is seen as leading to, or contributing to some improper actions.
- b. The provisions in the latter part of 173.220, - such as; (g)(1):
 Don't *clearly* state , or - otherwise *clearly* indicate that; -
 For transportation by highway: The exception *really* means that; -
 Hazardous Materials (HAZMAT) shipping papers, labeling and marking are excepted (and, - the items are still considered as HAZMAT).
- *** You said, -- even if, - the provisions in 173.220(g)(1) excepts any HAZMAT shipping papers , marking or labeling of the product ; - it's still regulated as Hazardous Materials .
- You also said, - in sec. 173.220(g)(1), -- where it states, - in part, " Are not subject to any other requirements of this subchapter, for transportation by motor vehicle or rail car; and . ." - this means that although , maybe not stated as such, -- some parts, portions or other sections; such as, - 173.21 and 173.24 really do apply -- even if, --- they're transported by motor vehicle or rail car .
- **** The provisions of 173.220(g)(1) appear as misleading and confusing. Some packagers and/or shippers don't readily understand or apply those provisions of 173.220(g)(1) correctly. As written, 173.220(g)(1) is also seen as leading to, - or contributing to some improper actions.
- Some packagers and shippers have misunderstood those 173.220 provisions. Recent observations in the field have clearly shown that, - even after clarifications from DoT; - at least, some people still don't fully understand and/or apply the provisions of 173.220(g)(1) correctly. Some recently have used 173.220(g)(1) to except all of the HMR provisions.
- It appears that, - in the best interests of the Government and public; - sec. 173.220(b)(1) and (g)(1) could and should be rewritten to preclude or minimize misunderstanding and confusion by packagers and/or shippers.*

For Shipping Engines, Internal Combustion, - In Freight Containers

It's more complicated when shipping Engines in freight containers .

If, there's an Engine, internal combustion, in a self-propelled vehicle, - has some flammable fuel remaining in the fuel tank, - the fuel tank and the fuel vents are securely closed, and the item is prepared for shipment by highway, per the 49 CFR, sec. 173.220(b)(1); -- it's also *excepted* from the HAZMAT shipping papers , labeling and marking , per 173.220(g)(1). Additionally, - for domestic transportation by highway, -- placarding of the vehicle isn't required , - per 172.504(c)(1).

Unfortunately, the provisions of 173.220 don't appear to adequately cover items shipped in boxes or freight containers .

As written, 173.220 doesn't have differentiations from " rolling stock ", readily discernable or readily accessible items; - versus totally enclosed, non-discernable or non-accessible items, -- in a box or freight container. That shows to be a problem. It allows hidden / undisclosed Class 9 hazards.

Machines and items are getting bigger, better; - lasting longer each day. It's likely that one may now be equipped with two 100 gallon fuel tanks. If it's properly packaged and shipped, - that's a lot of fuel for a Class 9. But, -- it would still meet the current written requirements of 173.220.

So, -- we can now have an item shipped in a box or freight container; --- transported on public highways, having two hundred gallons of flammable fuel in inside containers (spec or non-spec), ---- with NO HAZMAT shipping papers, marking or labeling of the outside containers, - and no placarding of the transportation vehicle.

In a situation similar to the above, - other than the packager / shipper; - *who knows what the hazards are or might be ? How would they ?*

* The unknowing would normally include the dispatchers, transporters, downstream receivers, inspectors, handling and/or storage people, --- as well as, emergency response people ; and the public, - at large.

Recent events have clearly shown that failing to mark and/or label some hazards; could and might easily result in some grave situations. Recent events have also shown that readily discernible marking / labeling should be done to prevent some tragic circumstances.

It *appears* that the provisions of 173.220 should be rewritten to include portions for, - or references to, - items which aren't " rolling stock ", readily discernable, readily accessible or those used during transportation; -- *particularly* those containing internal containers of flammable fuel. For related references, - see 173.3, 173.9, 173.13, 173.21(g), 173.24(b)(1), 173.24(f)(1)&(g), 173.24a(a)(1), 173.29(a)&(b)(1) and 173.312(a)(1)&(2).

It Shows That Some Shipments Could Go Incorrectly By Passenger Aircraft

As you're aware, - Engines, internal combustion, containing any fuel are a Class 9 hazard; -- and are strictly Forbidden for shipment by any passenger carrying aircraft, -- per the provisions of sec. 173.21(g).

However, - the combined effects of sec. 173.220; - as it's written, - and, some people not readily understanding / applying the provisions correctly, and, -- if the Engines were shipped in boxes or freight containers, then; - -- those unmarked and unlabeled boxes or freight containers, - along with no HAZMAT shipping papers, - *could very easily be* shipped (although, - incorrectly) on some passenger carrying aircraft.

If the above occurred, - it could result similar to the Value-Jet crash. I feel most strongly that we should do our best to prevent such situations.

With These Issues And Factors In Mind, -- This Is Submitted To You

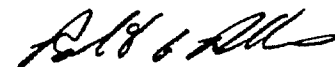
We've recently discovered that problems related to sec. 173.220 have existed for some time now. Those problems appear to have led to others. We've seen that items have been packaged and shipped incorrectly.

Many of us in the field are trying to ensure proper HAZMAT shipments. However, - it seems that we need some more changes in the regulations. Further; -- *those need to be done in clear text statements.*

I recommend that clear changes be made to sec. 173.220, -- fairly soon. Perhaps a clarifying article, - printed in the Federal Register might help.

" Thanks " in advance for your attention to these issues and factors. If you have any questions, -- please call me.

If you're unable to contact me, - please leave a message. If I don't get back to you soon; - then, please contact my alternate or my Team Leader. My alternate is Michael McTighe. He can be reached at (410) 339-4902. My Team Leader is Hugh Seborg. He can be reached at (410) 339-4876.



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