U.S. Department
of Transportation
**Research and
Special Programs
Administration**

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

APR - 6 2004

Mr. Keith Petropoulos
ECHO Incorporated
400 Oakwood Road
Lake Zurich, Il 60047-1564

Ref. No. 04-0076

Dear Mr. Petropoulos:

This is in response to your letter and subsequent phone conversation with Ben Supko of my staff concerning the regulation of outdoor equipment containing small two-cycle engines under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180).

You state that before these products are shipped they are tested by starting the engines using a fuel line directly inserted into the carburetor, bypassing the fuel tank. After confirmation that the engine works, the fuel line is closed and engine runs until all the fuel is consumed and the engine stops. At this point, the primer bulb is pumped while pulling the starting cord to force any residual fuel and vapors from the engine. It is your belief that this method of emptying and purging the small two-cycle engine of hazardous materials meets the requirements for being considered empty under § 173.220(a)(1).

An engine may be considered empty if the fuel tank, lines and engine components have been drained, sufficiently cleaned of residue, and purged of vapors to remove any potential hazard. While it is the responsibility of the shipper to properly classify their materials for transportation, it is the opinion of this Office that the methods you employ sufficiently clean and purge the engines and removes any potential hazards, thus meeting the requirements in § 173.220(a)(1) to be considered empty.

I hope this satisfies your request.

Sincerely,

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

040076

§ 173.220 (a)(1)

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Supko
§ 173.220 (a)(1)
Applicability
04-0076

To: Ben
2 Pages

March 29, 2004

Mr. Edward T. Mazzullo, Director
U. S. DOT/RSPA
DHM-10
400 7th Street S.W.
Washington, D.C. 20024

Re: Regulation of Air Transport of Two-cycle Engines

Dear Sir:

Echo, Incorporated is a manufacturer of outdoor power equipment, i.e., grass trimmers, blowers, chain saws, etc. Our products are powered by two-cycle engines which are fueled by a 50/1 gas/oil mixture.

Part of our manufacturing process includes the testing/starting of all engines. This is accomplished by inserting a fuel line directly into the engine carburetor, introducing fuel into the carburetor, pulling the starter cord and starting the engine. The fuel line is then closed and the engine runs for five to ten minutes, at which time all fuel has been consumed and the engine stops. The tester then pumps the primer bulb while pulling the cord to force any residual fuel from the engine. At no time during the procedure is any fuel put into the gas tank.

I have reviewed the code of federal regulations regarding shipment of hazardous materials. The pertinent regulation appears to be 173.220. However, its only reference to air transport is referral to conformity with 175.305 which deals only with self-propelled vehicles, not two-cycle engines.

We have been given verbal opinions that because of the fuel burnoff and purge procedures followed that our engines do not fall under the Hazmat regulations.

However, we would appreciate a written opinion regarding shipping classification and requirements based on the information given above.

We certainly wish to comply with transport regulations, but, obviously, don't want to incur additional expenses related to Hazmat procedures if not necessary.

Thank you in advance for your response.

Very truly yours

Keith Petropoulos
Traffic Supervisor
Echo, Incorporated