

IM-92-11

OREGON OCCUPATIONAL SAFETY AND HEALTH DIVISION TECHNICAL SERVICES SECTION

RULE INTERPRETATION

Record No: IM 92-11 (r)

Date: Revised October 19, 1993

Index: Flammable-combustible liquid storage containers.

Subject: To define what containers may be used to store flammable-combustible liquids under OAR 437-02-1910.106(d)(2), 437-03-1926.152(a)(1), and 437-06-100.

Discussion: Oregon OSHA now recognizes "approved" plastic containers as meeting the intent of these standards.

- A. **General Industry, OAR 437-02-1910.106(d)(2) and Forest Activities, OAR 437-06-100**, allows APPROVED METAL containers (metal safety cans) and Department of Transportation (DOT) approved portable drums to be used for flammable-combustible liquids use and storage.
- B. All containers must meet the following requirements:
1. Bear a label from a national testing lab and be listed for gasoline use.
 2. Be not over 5 gallons in size.
 3. Be capable of being closed so as to be liquid tight with no leakage when tipped.
- C. Metal drums must be DOT approved and not exceed 60 gallons in size for flammable-combustible liquid storage.
- Under Program Directive A-48 "Storing Flammable and Combustible Liquids in Polyethylene Containers", DOT polyethylene (plastic) drums may be used to store up to 60 gallons of flammable combustible liquids.
- D. **Construction**, OAR 437-03-1926.152(a)(1) allows only the use of APPROVED METAL SAFETY CANS at construction sites for flammable combustible liquid handling and use.
- E. Federal OSHA by letter of memorandum in clarifying the term "Approved" containers as set forth in 1926.152(a)(1) and 1926.32(C), states "APPROVED" means, sanctioned, endorsed, accredited, certified or accepted as satisfactory by a nationally recognized testing lab, therefore, plastic containers which are approved by a recognized testing lab, such as Underwriters Lab (UL) or Factory Mutual JM) as containers of

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flammable liquids can be accepted by OSHA as "APPROVED." Federal OSHA in a second memorandum, goes on to say APPROVED METAL OR PLASTIC SAFETY cans may be used for the handling and use of flammable liquids in quantities up to 5 gallons.

F. Safety cans must meet the following conditions:

1. Be not more than 5 gallons in capacity.
2. Be listed by a national testing lab such as UL, Factory Mutual, etc.
3. Have a spring closing lid which closes after filling or pouring.
4. Be leak tight.
5. Have a flame arrestor screen.
6. Have a safety valve to relieve internal pressure.

G. Nonmetallic (plastic) containers are molded from dense, thick polyethylene that is highly resistant to corrosive chemicals and provides an impervious barrier to low gravity flammable liquids.

Laboratory tests on plastic containers have indicated that electrostatic charges will not build up on the container body sufficient to ignite a mixture of air and gasoline liquid vapors.

Nonmetallic safety cans are more resistant to rough usage than conventional metal cans, they have higher dent, puncture and dropping resistance than metal and retains good appearance longer.

Conclusion:

- A. For other than construction, approved metal or plastic containers or approved safety combustible liquid cans of either metal or plastic may be used for flammable-combustible liquid handling and storage up to 5 gallons in capacity.
- B. For construction, only approved metal or plastic safety cans may be used for flammable-combustible liquid handling and storage up to 5 gallons in capacity.

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For flammable-combustible liquid storage, DOT approved metal drums or DOT approved metal containers may be used. When using approved containers for storage, they must be kept in an approved storage area or be kept in the back of a vehicle.

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