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UL 124

**Outline of Investigation for Hand-Operated Pumps for Flammable and
Combustible Liquids**

Issue Number: 3

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Summary of Topics

This third issue of Outline of Investigation for Hand-Operated Pumps for Flammable and Combustible Liquids, UL 124, adds requirements for a larger size pump and alternate fuel for testing.

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INTRODUCTION

1 Scope

1.1 These requirements cover hand-operated pumps intended to handle flammable and combustible liquids.

1.2 These pumps are intended to be attached to a threaded flange in the head or side of a barrel, drum, or other similar container.

1.3 “Flammable and combustible liquids” as used herein refers to the fuels shown in (a) – (g) and the vapors of these fuels:

- a) Gasoline;
- b) Gasoline/ethanol blends up to 15 percent ethanol;
- c) Gasoline/methanol blends up to 15 percent methanol;
- d) Diesel fuel;
- e) Fuel oil;
- f) Lubricating oil; and
- g) Kerosene.

Hand operated pumps investigated to the requirements of this outline shall be evaluated to the applicable fuels from (a) – (g) as specified by the manufacturer.

1.4 These pumps are evaluated in accordance with the applicable installation and operational requirements in the Flammable and Combustible Liquids Code, NFPA 30.

1.5 This outline does not cover hand-operated pumps for liquids other than shown in 1.3.

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2 General

2.1 Components

2.1.1 Except as indicated in 2.1.2, a component of a product covered by this outline shall comply with the requirements for that component.

2.1.2 A component is not required to comply with a specific requirement that:

- a) Involves a feature or characteristic not required in the application of the component in the product covered by this outline or
- b) Is superseded by a requirement in this outline.

2.1.3 A component shall be used in accordance with its rating established for the intended conditions of use.

2.1.4 Specific components are incomplete in construction features or restricted in performance capabilities. Such components are intended for use only under limited conditions, such as certain temperatures not exceeding specified limits, and shall be used only under those specific conditions.

2.2 Units of measurement

2.2.1 Values stated without parentheses are the requirement. Values in parentheses are explanatory or approximate information.

2.3 Undated references

2.3.1 Any undated reference to a code or standard appearing in the requirements of this outline shall be interpreted as referring to the latest edition of that code or standard.

3 Glossary

3.1 For the purposes of this outline, the following definitions apply.

3.2 DIAPHRAGM – A dividing membrane or thin partition that is used to provide the pumping action.

3.3 DISCHARGE NOZZLE – A component through which the fuel can be dispensed.

3.4 MANUAL PUMP – A non-powered device used to transfer liquids from a container to another container or device.