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Subjects 1238 (87)

1655 Scott Blvd.
 Santa Clara, CA 95050
 December 16, 1996

TO: Electrical Council of Underwriters Laboratories Inc.,
 Fire Council of Underwriters Laboratories Inc.,
 Subscribers to UL's Standards Service for:
 Control Equipment for Use with Flammable Liquid Dispensing Devices
 Power-Operated Dispensing Devices for Petroleum Products

SUBJECT: Adopted Requirements for the Second Edition of the Standard for Control Equipment
 for Use With Flammable Liquid Dispensing Devices, UL 1238; ESTABLISHED
 EFFECTIVE DATE

UL has reviewed all comments received in response to the Subjects 1238 (87) bulletin dated July 29, 1996, and has decided to adopt the requirements essentially as proposed. The text of the adopted requirements is shown in Appendix A.

Questions regarding interpretation of requirements should be directed to the responsible UL Staff. Please see Appendix B of this bulletin regarding designated responsibility for the subject product categories.

ESTABLISHED EFFECTIVE DATE

These new and revised requirements are now in effect.

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Subjects 1238 (87)

-2-

December 16, 1996

This bulletin should only be kept with your copy of Standard UL 1238 until revision pages incorporating these requirements are issued. UL anticipates issuing revision pages by January, 1997.

UNDERWRITERS LABORATORIES INC.

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APPENDIX A

ADOPTED REQUIREMENTS AND ESTABLISHED EFFECTIVE DATE FOR THE
SECOND EDITION OF THE STANDARD FOR
CONTROL EQUIPMENT FOR USE WITH FLAMMABLE LIQUID DISPENSING DEVICES,
UL 1238

20 Separation of Circuits

20.1 A factory-installed conductor shall be separated by a barrier or segregated as specified in 20.2 from a factory-installed conductor and from an uninsulated live part used in a different circuit.

Exception: Conductors provided with insulation rated for the highest voltage involved are not required to comply with this requirement.

20.1 revised December 16, 1996

20.2 Segregation of a conductor shall be accomplished by clamping, routing, or equivalent means that provides permanent separation from a conductor or an uninsulated live part of a different circuit.

20.2 revised December 16, 1996

20.3 The equipment shall be constructed so that a field-installed conductor of any circuit is segregated as specified in 20.5, or separated by a barrier (see 20.4) from:

- a) A field-installed conductor connected to any other circuit, unless:
 - 1) Both circuits are Class 2 or Class 3, or both circuits are other than Class 2 or Class 3 and
 - 2) The conductors of both circuits are insulated for the maximum voltage of either circuit.
- b) An uninsulated live part of any other circuit.

Exception No. 1: Field-installed conductors that come into contact with the wiring terminals of other circuits comply with the intent of this requirement when provided with marked instructions that specify the use of Type RH, TW, RFH-2, or conductors that have been determined to be equivalent in accordance with the National Electrical Code, ANSI/NFPA 70.

Exception No. 2: Field-installed conductors having insulation less than that provided with the wires specified in Exception No. 1, and that come into contact with low-voltage wiring terminals comply with the intent of this requirement when the short-circuiting of such terminals does not result in a risk of fire or electric shock.

- c) Any part that is sharp or exceeds the temperature rating of the field-installed conductor and is capable of damaging the field-installed conductor. See 10.1.6 and 38.4.
- d) A factory-installed conductor connected to any other circuit, unless the conductors of both circuits are insulated for the maximum voltage of either circuit.

Exception: The field-installed conductors are not required to be separated by a barrier when installation instructions are included that explain the proper procedure for maintaining separation and which, upon investigation, are found to achieve the required separation.

20.3 revised December 16, 1996

20.4 With respect to 20.3, when the intended uses of the device are such that in some applications a barrier is required while in other applications no barrier is required, a removable barrier, or one having openings for the passage of conductors, is not prohibited from being employed. Instructions for the use of such a barrier are to be a permanent part of the device.

20.4 added December 16, 1996

20.5 Field-installed conductors are not prohibited from being segregated from each other, and from uninsulated live parts or factory-installed conductors connected to different circuits of the device. This segregation is to be achieved by arranging the location of openings in an enclosure for the various field-installed conductors with respect to the terminals or other uninsulated live parts and factory- or field-installed conductors so that a minimum 1/4 inch (6.4 mm) permanent separation is provided.

20.5 added December 16, 1996

20.6 With respect to 20.5, when the number of openings in the enclosure does not exceed the minimum required for the intended wiring of the device, and when such openings are located opposite a set of terminals, it is to be assumed that a conductor entering an opening is to be connected to the terminals opposite that opening. When more than the minimum number of openings are provided, the possibility of a conductor entering an opening other than that opposite the terminal to which it is to be connected and contacting insulated conductors or uninsulated live parts connected to a different circuit is to be investigated in accordance with 10.1.6.

20.6 added December 16, 1996

APPENDIX B

DESIGNATED RESPONSIBILITY FOR UL PRODUCT CATEGORIES

EQXX, CONTROL, MONITORING AND AUXILIARY EQUIPMENT
 EQXX2, CONTROL, MONITORING AND AUXILIARY EQUIPMENT —
 COMPONENT
 EQXX7, CONTROL, MONITORING AND AUXILIARY EQUIPMENT CERTIFIED FOR
 CANADA
 EQXX8, CONTROL, MONITORING AND AUXILIARY EQUIPMENT CERTIFIED FOR
 CANADA — COMPONENT
 ERKQ, RETROFIT ASSEMBLIES
 EWTV, FLAMMABLE LIQUID DISPENSING DEVICES, POWER-OPERATED
 EWTV7, FLAMMABLE LIQUID DISPENSING DEVICES, POWER-OPERATED
 CERTIFIED FOR CANADA
 EXAU, FLAMMABLE LIQUID DISPENSING DEVICES, POWER-OPERATED,
 REBUILT

The individual shown in the following table is involved with the investigation of products covered under the subject categories. The Primary Designated Engineer (**shown in UPPERCASE letters**) coordinates the establishment and uniform interpretation of UL requirements applicable to the product categories.

Should you have questions regarding the interpretation of the requirements adopted in this bulletin or any adopted requirements that affect your product, you are encouraged to contact the individual at the office to which you normally submit your products.

The Industry Advisory Conference (IAC) Chairman for the subject categories is John Hawley at UL's Northbrook office. The IAC Chairman oversees the significant interpretations made by the Primary Designated Engineer and arbitrates any differences regarding interpretation of UL requirements.

CCN	Office/Subsidiary	Responsible Engineer	Extension
EQXX, EQXX2, EQXX7, EQXX8, ERKQ, EWTV, EWTV7, EXAU	Northbrook	R. A. FLORCZYK	42620

Power-Operated Dispensing Devices for Petroleum Products



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Underwriters Laboratories Inc., founded in 1894, is chartered as a not-for-profit organization without capital stock, under the laws of the State of Delaware, to establish, maintain, and operate laboratories for the examination and testing of devices, systems and materials to determine their relation to hazards to life and property, and to ascertain, define and publish standards, classifications and specifications for materials, devices, products, equipment, constructions, methods, and systems affecting such hazards.

UL Standards for Safety are developed under a procedure which provides for participation and comment from the affected public as well as industry. The procedure takes into consideration a survey of known existing standards and the needs and opinions of a wide variety of interests concerned with the subject matter of the standard. Thus manufacturers, consumers, individuals associated with consumer-oriented organizations, academicians, government officials, industrial and commercial users, inspection authorities, insurance interests and others provide input to UL in the formulating of UL Standards for Safety, to keep them consonant with social and technological advances.

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October 24, 1995

Standard for

Power-Operated Dispensing Devices for Petroleum Products

UL 87, Tenth Edition

Accompanying this transmittal notice is a copy of the tenth edition of UL 87.

THIS EDITION OF THE STANDARD IS NOW IN EFFECT.

Attention is directed to the note on the title page of this standard identifying that the Department of Defense has adopted the text of UL 87.

Revised and/or additional pages may be issued from time to time.



Documents

Document Sharing Hub

OCTOBER 24, 1995

1

UL 87

Standard for

Power-Operated Dispensing Devices for Petroleum Products

The first through sixth editions were titled Power-Operated Dispensing Devices for Flammable Liquids.

First Edition – May, 1930
 Second Edition – March, 1951
 Third Edition – July, 1958
 Fourth Edition – March, 1964
 Fifth Edition – April, 1971
 Sixth Edition – July, 1974
 Seventh Edition – December, 1975
 Eighth Edition – July, 1981
 Ninth Edition – September, 1990

Tenth Edition

October 24, 1995

An effective date included as a note immediately following certain requirements is one established by Underwriters Laboratories Inc.

The Department of Defense (DoD) has adopted UL 87 on March 11, 1991. The publication of revised pages or a new edition of this standard will not invalidate the DoD adoption.

Revisions of this standard will be made by issuing revised or additional pages bearing their date of issue. A UL Standard is current only if it incorporates the most recently adopted revisions, all of which are itemized on the transmittal notice that accompanies the latest published set of revision pages.

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CONTENTS**FOREWORD****INTRODUCTION**

1 Scope	5
2 General	5
3 Glossary	6

CONSTRUCTION

4 General	7
5 Materials	8
6 Base	9
7 Pedestal	9
8 Housing	10
9 Pumping Units	11
10 Pressure Relief	11
11 Springs	12
12 Strainer	12
13 Visible Discharge Indicator	13
14 Valves	13
15 Piping and Fittings	13
16 Hose and Couplings	15
17 Control Application	15

ELECTRICAL EQUIPMENT

18 General	16
19 Motors	18
20 Switches	18
21 Class I, Group D, Division 2 Location, Lighting, Electrical, and Electronic Equipment ...	19
22 Wiring Methods	20
23 Locking Mechanism	22

PERFORMANCE

24 General	22
25 Endurance Test	22
26 High-Pressure Leakage Test	23
27 Hydrostatic Strength Test	23
28 Mercurous-Nitrate Immersion Test	23
29 Float Crushing Test	24
30 Marking Adhesion Test	24
31 Volume Change Test	24
32 Weight Loss Test	25
33 Aging Test	25
34 Torque Test	25
35 Rain Test	26
36 Temperature Reduction Test	26

INSTALLATION INSTRUCTIONS

37 General	26
------------------	----

MANUFACTURING AND PRODUCTION TESTS

38 General	27
39 Leakage Test	27
40 Running Test	27
41 Dielectric Voltage-Withstand Test	27

MARKING

42 General	28
------------------	----

APPENDIX A

Standards for Components	A1
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FOREWORD

A. This Standard contains basic requirements for products covered by Underwriters Laboratories Inc. (UL) under its Follow-Up Service for this category within the limitations given below and in the Scope section of this Standard. These requirements are based upon sound engineering principles, research, records of tests and field experience, and an appreciation of the problems of manufacture, installation, and use derived from consultation with and information obtained from manufacturers, users, inspection authorities, and others having specialized experience. They are subject to revision as further experience and investigation may show is necessary or desirable.

B. The observance of the requirements of this Standard by a manufacturer is one of the conditions of the continued coverage of the manufacturer's product.

C. A product which complies with the text of this Standard will not necessarily be judged to comply with the Standard if, when examined and tested, it is found to have other features which impair the level of safety contemplated by these requirements.

D. A product employing materials or having forms of construction differing from those detailed in the requirements of this Standard may be examined and tested according to the intent of the requirements and, if found to be substantially equivalent, may be judged to comply with the Standard.

E. UL, in performing its functions in accordance with its objectives, does not assume or undertake to discharge any responsibility of the manufacturer or any other party. The opinions and findings of UL represent its professional judgment given with due consideration to the necessary limitations of practical operation and state of the art at the time the Standard is processed. UL shall not be responsible to anyone for the use of or reliance upon this Standard by anyone. UL shall not incur any obligation or liability for damages, including consequential damages, arising out of or in connection with the use, interpretation of, or reliance upon this Standard.

F. Many tests required by the Standards of UL are inherently hazardous and adequate safeguards for personnel and property shall be employed in conducting such tests.