ULC Standards
Normes ULC

JOINT CANADA-UNITED STATES
NATIONAL STANDARD

ANSI/CAN/UL/ULC 300:2022

STANDARD FOR SAFETY

Fire Testing of Fire Extinguishing Systems for Protection of Commercial Cooking Equipment

Approved American National Standard
ANSI

ANSI/UL 300-2022

scc ccn

SCC FOREWORD

National Standard of Canada

A National Standard of Canada is a standard developed by a Standards Council of Canada (SCC) accredited Standards Development Organization, in compliance with requirements and guidance set out by SCC. More information on National Standards of Canada can be found at www.scc.ca.

SCC is a Crown corporation within the portfolio of Innovation, Science and Economic Development (ISED) Canada. With the goal of enhancing Canada's economic competitiveness and social well-being, SCC leads and facilitates the development and use of national and international standards. SCC also coordinates Canadian participation in standards development, and identifies strategies to advance Canadian standardization efforts.

Accreditation services are provided by SCC to various customers, including product certifiers, testing laboratories, and standards development organizations. A list of SCC programs and accredited bodies is publicly available at www.scc.ca.

UL COPYRIGHTED MATERIAL – NOT AUTHORIZED FOR FURTHER REPRODUCTION OR DISTRIBUTION WITHOUT PERMISSION FROM UL INC.

UL Standard for Safety for Fire Testing of Fire Extinguishing Systems for Protection of Commercial Cooking Equipment, ANSI/CAN/UL/ULC 300

Fourth Edition, Dated June 10, 2019

Summary of Topics

This revision of ANSI/CAN/UL/ULC 300 dated July 6, 2022 includes requirements for the commercially available deep fat fryer with an electric powered heating source; 6.2.1.

Text that has been changed in any manner or impacted by UL's electronic publishing system is marked with a vertical line in the margin.

The revised requirements are substantially in accordance with Proposal(s) on this subject dated April 8, 2022.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form by any means, electronic, mechanical photocopying, recording, or otherwise without prior permission of UL.

UL provides this Standard "as is" without warranty of any kind, either expressed or implied, including but not limited to, the implied warranties of merchantability or fitness for any purpose.

In no event will UL be liable for any special, incidental, consequential, indirect or similar damages, including loss of profits, lost savings, loss of data, or any other damages arising out of the use of or the inability to use this Standard, even if UL or an authorized UL representative has been advised of the possibility of such damage. In no event shall UL's liability for any damage ever exceed the price paid for this Standard, regardless of the form of the claim.

Users of the electronic versions of UL's Standards for Safety agree to defend, indemnify, and hold UL harmless from and against any loss, expense, liability, damage, claim, or judgment (including reasonable attorney's fees) resulting from any error or deviation introduced while purchaser is storing an electronic Standard on the purchaser's computer system.

UL COPYRIGHTED MATERIAL – NOT AUTHORIZED FOR FURTHER REPRODUCTION OR DISTRIBUTION WITHOUT PERMISSION FROM UL INC.

ANSI/UL 300-2022

JUNE 10, 2019
(Title Page Reprinted: July 6, 2022)

ANSI/CAN/UL/ULC 300:2022

Standard for Fire Testing of Fire Extinguishing Systems for Protection of Commercial Cooking Equipment

First Edition – July, 1992
Second Edition – March, 1996
Third Edition – May, 2005

Fourth Edition

June 10, 2019

This ANSI/CAN/UL/ULC Safety Standard consists of the Fourth Edition including revisions through July 6, 2022.

The most recent designation of ANSI/UL 300 as an American National Standard (ANSI) occurred on July 6, 2022. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, Title Page, Preface or SCC Foreword.

This standard has been designated as a National Standard of Canada (NSC) on July 6, 2022.

COPYRIGHT © 2022 UNDERWRITERS LABORATORIES INC.

UL COPYRIGHTED MATERIAL – NOT AUTHORIZED FOR FURTHER REPRODUCTION OR DISTRIBUTION WITHOUT PERMISSION FROM UL INC.

CONTENTS

Preface 5

INTRODUCTION

1 Scope 9
2 Components 9
3 Units of Measurements 9
4 Undated References 9
5 Glossary 9

PERFORMANCE

6 Cooking Appliance Extinguishment Tests 11
6.1 General 11
6.2 Deep fat fryer 12
6.3 Griddle 13
6.4 Range top 14
6.5 Gas radiant char-broiler 15
6.6 Electric char-broiler 15
6.7 Lava, pumice, or synthetic rock char-broiler 15
6.8 Natural charcoal broiler 15
6.9 Mesquite wood char-broiler 16
6.10 Upright broiler 16
6.11 Chain broiler 17
6.12 Wok 17
6.13 Deep fat fryer extinguishment splash test 18
6.14 Deep fat fryer cooking temperature splash test 18
6.15 Range top extinguishment splash test 19
6.16 Range top cooking temperature splash test 19
6.17 Wok extinguishment splash test 20
6.18 Wok cooking temperature splash test 20
7 Hood and Duct (Full Scale) Extinguishment Test 21
7.1 General 21
7.2 Hood 21
7.3 Filter and frame 21
7.4 Duct 23
7.5 Extinguishing system unit preparation 23
7.6 General test procedures 24
7.7 Fuel loading 24
7.8 Temperature measurement 24
7.9 Deep fat fryer 24
7.10 Duct air flow 24
7.11 Fuel ignition and extinguishing system unit operation 25
7.12 Plenum testing 25
7.13 Conditions of acceptability 26

ANNEX A

A1 Normative References 27

UL COPYRIGHTED MATERIAL – NOT AUTHORIZED FOR FURTHER REPRODUCTION OR DISTRIBUTION WITHOUT PERMISSION FROM UL INC.

Preface

This is the Fourth Edition of the ANSI/CAN/UL/ULC 300, Fire Testing of Fire Extinguishing Systems for Protection of Commercial Cooking Equipment.

UL is accredited by the American National Standards Institute (ANSI) and the Standards Council of Canada (SCC) as a Standards Development Organization (SDO).

This Standard has been developed in compliance with the requirements of ANSI and SCC for accreditation of a Standards Development Organization. ULC Standards is accredited by the Standards Council of Canada (SCC) as a Standards Development Organization (SDO).

Only metric SI units of measurement are used in this Standard. If a value for measurement is followed by a value in other units in parentheses, the second value may be approximate. The first stated value is the requirement.

Annex A, identified as Informative, is for information purposes only.

This ANSI/CAN/UL/ULC 300 Standard is under continuous maintenance, whereby each revision is approved in compliance with the requirements of SCC for accreditation of a Standards Development Organization. In the event that no revisions are issued for a period of four years from the date of publication, action to revise, reaffirm, or withdraw the standard shall be initiated.

In Canada, there are two official languages, English and French. All safety warnings must be in French and English. Attention is drawn to the possibility that some Canadian authorities may require additional markings and/or installation instructions to be in both official languages.

This Fourth Edition Joint American National Standard and National Standard of Canada is based on, and now supersedes, the Third Edition of UL 300, Standard for Fire Testing of Fire Extinguishing Systems for Protection of Commercial Cooking Equipment, and the First Edition of ULC/ORD-C1254.6-1995, Other Recognized Document for Fire Testing of Restaurant Cooking Area Fire Extinguisher System Units.

Comments or proposals for revisions on any part of the Standard may be submitted to UL at any time. Proposals should be submitted via a Proposal Request in UL's On-Line Collaborative Standards Development System (CSDS) at http://csds.ul.com.

UL's Standards for Safety are copyrighted by UL. Neither a printed nor electronic copy of a Standard should be altered in any way. All of UL's Standards and all copyrights, ownerships, and rights regarding those Standards shall remain the sole and exclusive property of UL.

Requests for interpretation of this Standard should be sent to ULC Standards. The requests should be worded in such a manner as to permit a "yes" or "no" answer based on the literal text of the requirement concerned.

To purchase UL Standards, visit the UL Standards Sales Site at
http://www.shopulstandards.com/ HowToOrder.aspx or call tollfree 1-888-853-3503.

This Edition of the Standard has been formally approved by the UL Standards Technical Panel (STP) on Extinguishing Systems, STP 300.

This list represents the STP 300 membership when the final text in this standard was balloted. Since that time, changes in the membership may have occurred.

UL COPYRIGHTED MATERIAL – NOT AUTHORIZED FOR FURTHER REPRODUCTION OR DISTRIBUTION WITHOUT PERMISSION FROM UL INC.

STP 300 Membership

Name	Representing	Interest Category	Region
Art Black	Carmel Fire Protection Associates	AHJ	USA
Richard Bolyard	NC Department of Insurance – Office of State Fire Marshal	AHJ	USA
Lawrence Carmen	Victaulic	Producer	USA
Doug Claywell	Henny Penny Corp.	Commercial/Industrial User	USA
Tony Crimi	A.C. Consulting Solutions Inc.	General Interest	Ontario
Gian Guido De Parenti	Firepro Systems Ltd.	Producer	Cyprus
James Engman	Ansul Incorporated	Producer	USA
Dwayne Garris	FEMA	General Interest	USA
Anthony Gee	Fireaway Inc.	Producer	USA
Diane Haithcock	Underwriters Laboratories Inc.	STP Chair – Non-voting	USA
Timothy Kelley	Giles Enterprises Inc.	Producer	USA
Chuck Kimball	Brooks Equipment Company, Inc.	Producer	USA
Bruce Levitt	Levitt-Safety Ltd	Supply Chain	Ontario
Richard Lupien	Kidde-Fenwal Inc.	Producer	USA
Thomas Moskaluk	Moskaluk Consulting	Producer	USA
Derek O'Donnell	Phoenix Fire Systems Inc.	Supply Chain	USA
Maurice Pilette	Mechanical Designs Ltd.	General Interest	USA
Scott Pugsley	Seneca College	General Interest	Ontario
Mark Robin	The Chemours Co.	Supply Chain	USA
Rajesh Sabadra	K V Fire Chemicals (I) Pvt Ltd	Supply Chain	India
Kevin Scott	KH Scott & Associates	AHJ	USA
Blake Shugarman	UL LLC	Testing and Standards	USA
Raymond Stacy	FM Approvals	Testing and Standards	USA
David Tiller	Office of the Fire Marshal & Emergency Management – Ontario Fire College	AHJ	Ontario
Pock Utiskul	US Coast Guard	Government	USA
Gideon Yonathan	Servvo Fire Indonesia	International Delegate	Indonesia
Nicolette Weeks	Underwriters Laboratories Inc.	STP Project Manager – Non-voting	USA

International Classification for Standards (ICS): 13.220.20

For further information on UL standards, please contact:

Underwriters Laboratories Inc.
Telephone: (613) 755-2729
E-mail: ULCStandards@ul.com
Web site: ulse.org

This Standard is intended to be used for conformity assessment.

UL COPYRIGHTED MATERIAL – NOT AUTHORIZED FOR FURTHER REPRODUCTION OR DISTRIBUTION WITHOUT PERMISSION FROM UL INC.

The intended primary application of this standard is stated in its scope. It is important to note that it remains the responsibility of the user of the standard to judge its suitability for this particular application.

CETTE NORME NATIONALE DU CANADA EST DISPONIBLE EN VERSIONS FRANÇAISE ET ANGLAISE.

UL COPYRIGHTED MATERIAL – NOT AUTHORIZED FOR FURTHER REPRODUCTION OR DISTRIBUTION WITHOUT PERMISSION FROM UL INC.

INTRODUCTION

1 Scope

1.1 These requirements cover the performance during fire tests of pre-engineered fire extinguishing system units intended for the protection of commercial cooking equipment for restaurants, cafeterias and other similar venues. For installation requirements, see the following documents: NFPA 17, Standard for Dry Chemical Extinguishing Systems; NFPA 96, Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations; NFPA 17A, Standard for Wet Chemical Extinguishing Systems; and the National Building Code of Canada. Note that local authorities having jurisdiction should be consulted prior to installation.

1.2 Pre-engineered fire extinguishing system units, agents, or both shall also comply with the requirements for construction and performance as applicable to specific types, designs, sizes, and arrangements. Such additional requirements include ANSI/CAN/UL/ULC 1254 and are not within the scope of these requirements for fire tests.

1.3 The term "product" as used in this standard refers to all fire extinguishing systems or any part thereof covered by the requirements unless specifically noted otherwise.

2 Components

2.1 Except as indicated in 2.2, a component of a product covered by this standard shall comply with the requirements for that component.

2.2 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 standard, or

b) Is superseded by a requirement in this standard.

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

2.4 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.

3 Units of Measurements

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

4 Undated References

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

5 Glossary

5.1 For the purpose of these requirements, the following definitions apply.

UL COPYRIGHTED MATERIAL – NOT AUTHORIZED FOR FURTHER REPRODUCTION OR DISTRIBUTION WITHOUT PERMISSION FROM UL INC.