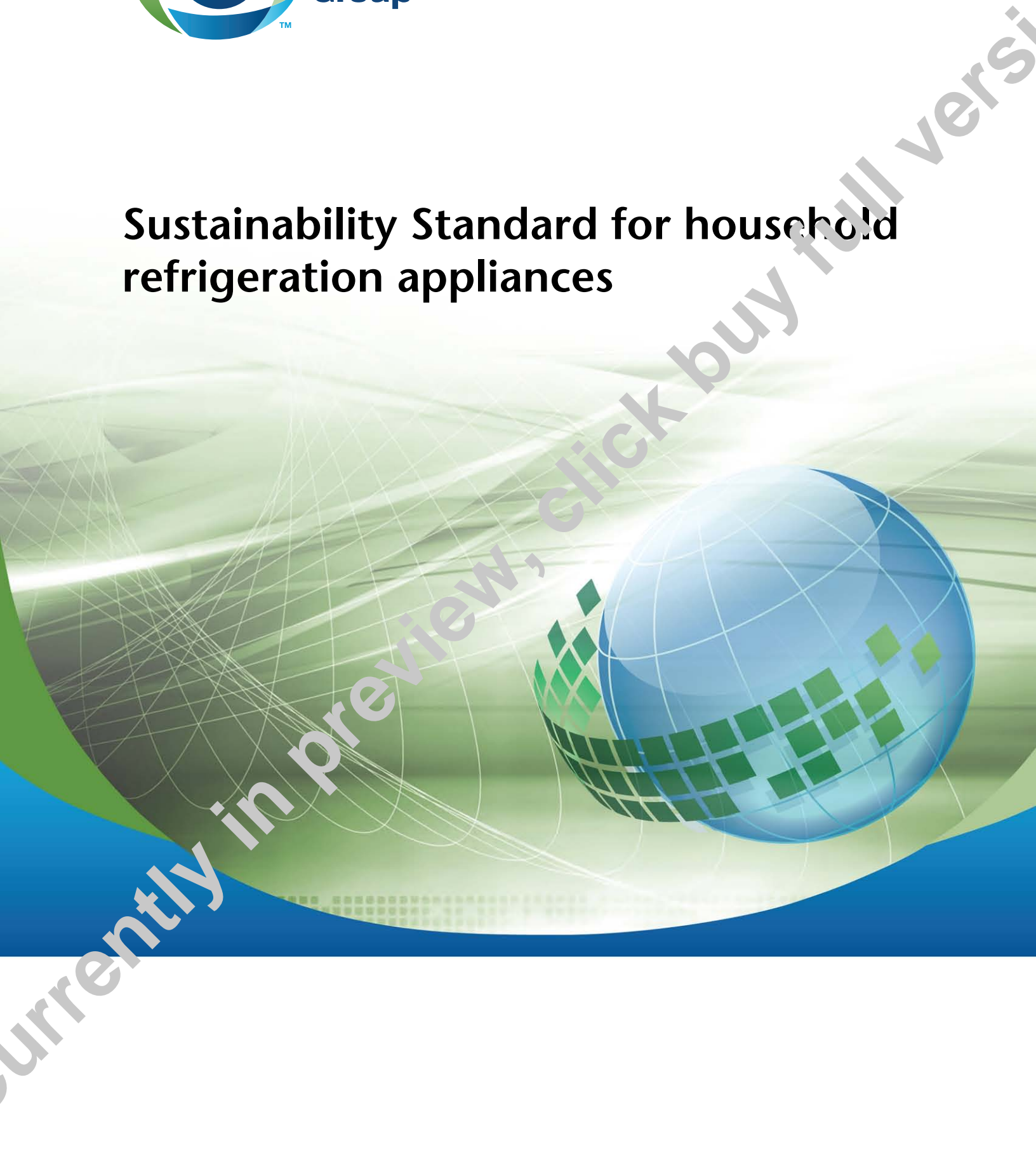




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CSA SPE-7001-12

Sustainability Standard for household refrigeration appliances



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CSA SPE-7001-12

June 2012

Title: *Sustainability Standard for household refrigeration appliances*

Pagination: **58 pages** (viii preliminary and 50 text), each dated **June 2012**

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CSA Group
5060 Spectrum Way, Suite 100
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Canada
1-800-463-6777 or 416-747-4044

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*AHAM 7001-2012/CSA SPE-7001-12/UL 7001
Sustainability Standard for household
refrigeration appliances*



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Published June 6, 2012

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ISBN 978-1-55491-989-5

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Contents

Task Force on AHAM-CSA Group-UL Sustainability Standard for Household Refrigeration Appliances v

Foreword vii

Preface viii

1 Scope 1

2 Normative references 1

3 Definitions 3

4 General requirements 7

4.1 Units of measurement 7

4.2 Undated references 7

4.3 Attributes 7

4.4 Assessment 7

5 Point allocation system 7

6 Prerequisites 8

7 Audit scope and boundaries 9

8 Attributes, criteria, and metrics 10

8.1 Materials attribute 10

8.1.1 General 10

8.1.2 Attribute prerequisite 10

8.1.3 Criteria: Materials of concern 10

8.1.4 Criteria: Refrigerant and foam blowing agent selection 11

8.1.5 Criteria: Product recycled content 12

8.1.6 Criteria: Packaging recycled content 12

8.1.7 Criteria: Dematerialization, efficient use of raw material resources 13

8.2 Attribute: Energy consumption during use 13

8.2.1 General 13

8.2.2 Assessment 14

8.3 Attribute: Manufacturing and operations 14

8.3.1 General 14

8.3.2 Attribute prerequisite 15

8.3.3 Criteria: Environmental management systems 15

8.3.4 Criteria: Greenhouse gas (GHG) emissions reporting and reduction 15

8.3.5 Criteria: Water use 16

8.3.6 Criteria: Pollution prevention 17

8.3.7 Criteria: Corporate sustainability 17

8.4 Attribute: Product performance 18

8.4.1 General 18

8.4.2 Assessment 18

8.5 Attribute: End-of-life management 18

8.5.1 General 18

8.5.2 Criteria: Design for recycling 18

8.5.3 Criteria: Landfill diversion 19

- 8.6 Attribute: Innovation 19
- 8.6.1 General 19
- 8.6.2 Assessment of innovations 19

9 Document retention and record keeping 20

Annexes

- A** (informative) — Multi-attribute approach 21
- B** (informative) — References 39
- C** (informative) — Refrigerant and foam blowing agent selection — Additional information 42
- D** (informative) — Environmental management systems 45
- E** (informative) — Innovation 46
- F** (informative) — Pre-consumer and post-consumer recycled content 47
- G** (informative) — Drafting process 49

Task Force on AHAM-CSA Group-UL Sustainability Standard for Household Refrigeration Appliances

K. Mazzella	General Electric, Louisville, Kentucky, USA	<i>Chair</i>
J.B. Hoyt	Whirlpool, Benton Harbor, Michigan, USA	<i>Vice-Chair</i>
K. Bakshi	BSH Home Appliances, New Bern, North Carolina, USA	
B. Brown-West	Whirlpool, Benton Harbor, Michigan, USA	
J. Chun	LG Electronics, Englewood Cliffs, New Jersey, USA	
D. Dao	Samsung Electronics, Rancho Dominguez, California, USA	
R. Devos	General Electric, Louisville, Kentucky, USA	
A. Eisenberg	BSH Home Appliances, Brussels, Belgium	
J. Fava	PE International, West Chester, Pennsylvania, USA	
P. Firth	UL Environmental, Northbrook, Illinois, USA	
S. Gopal	Association of Home Appliance Manufacturers, Washington, DC, USA	
D. Hall	Electrolux, Anderson, South Carolina, USA	
C. Harnanan	PE International, Ottawa, Ontario	
I. Hoss	CSA Group, Toronto, Ontario	
M. Martel	Canadian Appliance Manufacturers Association, Toronto, Ontario	
R. Morrison	CSA Group, Toronto, Ontario	

J. Mura	General Electric, Louisville, Kentucky, USA	
S. Polinski	Miele USA, Princeton, New Jersey, USA	
C. Samuels	Association of Home Appliance Manufacturers, Washington, DC, USA	
M. Staebler	BSH Home Appliances, New Bern, North Carolina, USA	
G. Stauffer	AGA Marvel, Greenville, Michigan, USA	
L. Tam	UL Environment, Northbrook, Illinois, USA	
E. Veldman	CSA Group, Toronto, Ontario	
R. Voglewede	Whirlpool, Benton Harbor, Michigan, USA	
H. Walter-Terrinoni	DuPont, Wilmington, Delaware, USA	
S. Wong	PE International, Ottawa, Ontario	
W. Morris	Association of Home Appliance Manufacturers, Washington, DC, USA	<i>Project Manager</i>

The Task Force would like to acknowledge the assistance of the following individuals and organizations who reviewed and provided comments on draft documents. Their information and guidance has been very valuable toward the publication of the standard:

- K. Dooley of The Sustainability Consortium
- M. Chenard of Lowe's
- P. Campbell and T. DeSalvo of Sears Holding Corp.
- M. Connelly and J. Narici of Consumers Union
- A. Stevens and a large team from U.S. Environmental Protection Agency
- A. Martin and J. Seguin of Environment Canada
- K. Littlejohns of Carbon Disclosure Project
- T. Carlson and M. Capozzi of Best Buy.

Foreword

The Association of Home Appliance Manufacturers (AHAM), CSA Group, and Underwriters Laboratories Inc. (UL), as a Task Force, collaborated with experts and stakeholders to develop this non-consensus Standard for home appliances as the first step in a broader Product Sustainability Initiative. The overall goal of this family of Standards is to provide meaningful product sustainability information to consumers and stakeholders. It is intended for this initiative to drive innovation and continual improvement in the sustainability performance of home appliances by empowering consumers. This Standard is based on product life cycle information and consideration for consumer expectations. It provides information for consumers, governments, retailers, and other program developers to help distinguish between products based on environmental criteria.

AHAM, CSA, and UL would like to acknowledge the assistance of *PE INTERNATIONAL and Five Winds Strategic Consulting* whose staff served as experts and project managers.



The Association of Home Appliance Manufacturers (AHAM) represents manufacturers of major, portable and floor care home appliances, and suppliers to the industry in the U.S. and Canada. AHAM's membership includes over 150 companies throughout the world. AHAM is also a standards development organization, accredited by the American National Standards Institute (ANSI) and authors numerous appliance performance testing standards used by manufacturers, consumer organizations and governmental bodies to rate and compare appliances. AHAM administers several appliance rating verification programs, employing third party laboratories. AHAM's consumer safety education program has educated millions of consumers on ways to properly and safely use appliances such as portable heaters, clothes dryers, and cooking products.



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Preface

This is the first edition of AHAM 7001/CSA SPE-7001/UL 7001, *Sustainability Standard for household refrigeration appliances*. This is a non-consensus document; it will be processed in accordance with procedures accredited by ANSI and SCC with the intent of being published as a consensus document in the near future.

The environmental performance of refrigeration home appliances is commonly evaluated on the single environmental attribute of electricity consumption during use. This Standard on home appliance sustainability for refrigeration products takes a broader, multi-attribute, and more holistic approach to assessing the environmental impacts of refrigeration home appliances.

The multi-attribute approach was developed using life-cycle assessment (LCA) information along with other key factors such as hot-spot or hot-button analyses influencing product environmental performance. This approach, detailed in [Annex A](#), determined the environmental attributes of refrigeration appliances for inclusion in this Standard.

It has been contemplated by all parties that this Standard will be updated at the time a new U.S. Department of Energy or Natural Resources Canada minimum energy standard change occurs. Many of the measurements included within this Standard are unique and have not been conducted on other appliance categories. The Task Force expects to learn much from the application of this First Edition in the ensuing years. The use of this Standard, and self-assessment by refrigerator manufacturers and external third-party assessment, will be used to improve the Standard in drafting the second and subsequent editions.

This Standard was written specifically for products placed on the market in the United States and Canada. At the present time, a number of the calculations are based on systems specific to North America.

This Standard was prepared by the Task Force on AHAM-CSA Group-UL Sustainability Standard for Household Refrigeration Appliances, under the jurisdiction of the AHAM Major Appliance Engineering Council, CSA Strategic Steering Committee on Business Management and Sustainability, and UL Environment.

Interpretations

The interpretation by the standards development organization of an identical or equivalent standard is based on the literal text to determine compliance with the standard in accordance with the procedural rules of the standards development organization. If more than one interpretation of the literal text has been identified, a revision is to be proposed as soon as possible to each of the standards development organizations to more accurately reflect the intent.

AHAM 7001-2012/CSA SPE-7001-12/ UL 7001

Sustainability Standard for household refrigeration appliances

1 Scope

1.1

This Standard covers two-phase refrigerant compression-type refrigeration appliances for household use included within the scope of the US Department of the Environment (DoE) and Natural Resources Canada (NRCAN) minimum energy performance requirements. This includes the following product categories:

- (a) refrigerators;
- (b) refrigerator-freezers;
- (c) chest and upright freezers; and
- (d) compact refrigerators/compact freezers.

Note: *The Task Force intends to expand the scope to include refrigerated beverage chillers, wine coolers, and other residential refrigeration products in future editions. New product categories and information on the environmental performance of the additional categories might be considered in order to determine the scope of future editions.*

1.2

This Standard does not cover absorption-type refrigerators or refrigeration appliances for commercial use.

1.3

This Standard does not include directions for conformity assessment or the use of a mark/seal of conformity assessment.

1.4

In this Standard, “shall” is used to express a requirement, i.e., a provision that the user is obliged to satisfy in order to comply with the Standard; “should” is used to express a recommendation or that which is advised but not required; and “may” is used to express an option or that which is permissible within the limits of the standard.

Notes accompanying clauses do not include requirements or alternative requirements; the purpose of a note accompanying a clause is to separate from the text explanatory or informative material.

Notes to tables and figures are considered part of the table or figure and may be written as requirements.

Annexes are designated normative (mandatory) or informative (nonmandatory) to define their application.

2 Normative references

This Standard makes reference to the following publications.

Note: *A list of informative references to laws and regulations for refrigeration products is provided in [Annex B](#).*

AHAM (Association of Home Appliance Manufacturers)

ANSI/AHAM-HRF-1-2007

Energy, Performance and Capacity of Household Refrigerators, Refrigerator-Freezers and Freezers