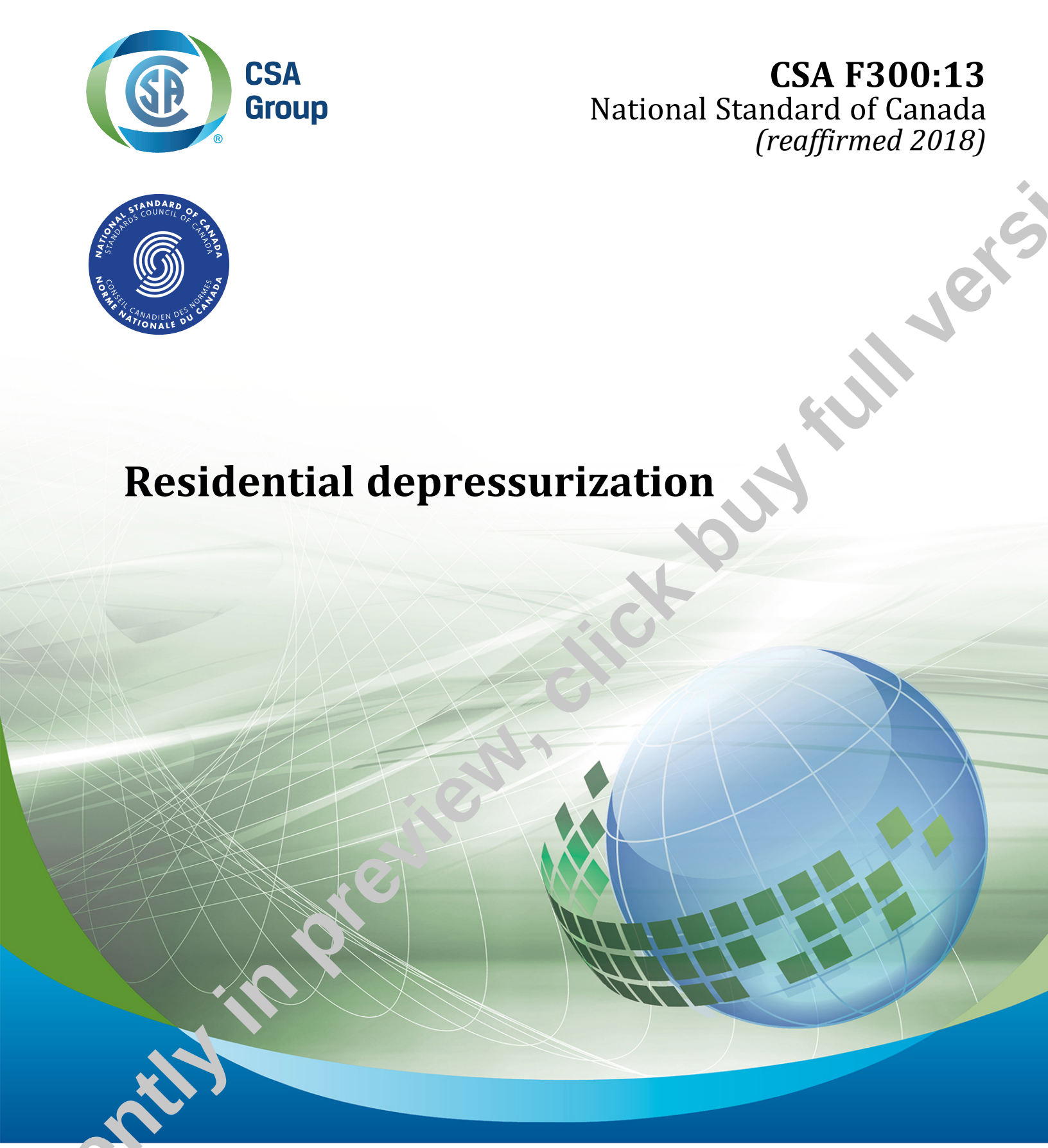
CSA Group

CSA F300:13

National Standard of Canada

(reaffirmed 2018)

Residential depressurization



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CSA F300:13, Residential depressurization

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Although the intended primary application of this Standard is stated in its Scope, it is important to note that it remains the responsibility of the users to judge its suitability for their particular purpose.

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Residential depressurization

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Preface

This is the first edition of CSA F300, *Residential depressurization*.

This Standard provides homeowners, contractors, equipment manufacturers and others involved in Canadian residential buildings with information which describes a method to identify when residential depressurization may cause a health risk, and provides solutions to prevent or mitigate the buildup of combustion products in the house. This Standard is intended for the use of those who sell and install fuel burning appliances and ventilation equipment, as well as designers, renovators, trades people, building officials, utilities, and homeowners.

CSA Group acknowledges that the development of this Standard was made possible, in part, with the use of specific forms included from HRAI.

This Standard is considered suitable for use for conformity assessment within the stated scope of this Standard.

This Standard was prepared by the Technical Committee on Residential Depressurization, under the jurisdiction of the Strategic Steering Committee on Fuel-Burning Equipment, and has been formally approved by the Technical Committee.

This Standard has been developed in compliance with Standards Council of Canada requirements for National Standards of Canada. It has been published as a National Standard of Canada by CSA Group.

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CSA F300:13
Residential depressurization

0 Introduction

This is the first national Standard to address issues and concerns that arise from the depressurization of existing houses. Depressurization occurs when the air pressure inside a house is lower than it is outside. It is more frequent in existing houses after they have been retrofitted and air-sealed.

The exterior envelope of many houses is becoming much tighter due to the desire for increased energy efficiency and comfort. Under certain circumstances, there is a possibility that combustion products from fuel-burning equipment will spill into the house, rather than being correctly exhausted to the outdoors. A buildup of combustion products in the house poses a health risk to the occupants. Other circumstances that pose risks include the passage of soil gases such as radon, and the passage of vehicle-based or other pollutants from an attached garage; however this Standard does not give a method to determine depressurization levels or recommend mitigation strategies for these occurrences.

When houses undergo any renovations, the ventilation rate of that house is usually reduced and might no longer be adequate. This Standard describes a method to identify when residential depressurization can cause a health risk, and provides solutions to prevent or mitigate the buildup of combustion products in the house. This Standard is intended for the use of those who sell and install fuel burning appliances and ventilation equipment, as well as designers, renovators, trades people, building officials, utilities, and homeowners.

The method and solutions are based on the assumption that the fuel burning appliances in the house have been maintained and operated as per the manufacturer's certified instructions.

1 Scope

1.1

This Standard describes the methods for determining the level of depressurization and solutions to mitigate risk arising from depressurization.

1.2

This Standard applies to all existing single-family dwelling units contained in detached, semi-detached, and row houses equipped with an exhaust device, which have

a) a combustion device within the house; or
b) an attached garage.

1.3

This Standard does not provide depressurization level assessment methods or solutions for

a) the infiltration of soil gas such as radon;
b) the presence of volatile organic compound (VOC) emissions from building materials or contents;
c) the presence of mold in houses; or
d) the presence of pollutants from other sources, such as stored chemical products.

