Natural gas and propane installation code
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Preface


In 1958, the Canadian Standards Association published the first edition of CSA B149, *Installation Code for Gas Burning Appliances and Equipment*. It was superseded by later editions in 1962, 1966, and 1971. Following the publication of the 1966 edition, the decision was made to split the Code into two parts: B149.1, dealing with the installation of appliances and equipment burning natural gas, and B149.2, dealing with the installation of appliances and equipment burning propane. As a first step, B149.2 was prepared and first published in 1969.


On June 30, 1997, the Canadian Standards Association acquired International Approval Services (IAS), which was until then a joint venture of the American Gas Association (AGA) and the Canadian Gas Association. Under this agreement, CSA acquired the complete range of IAS standards administration, certification, and registration products and services for appliances and accessories fuelled by natural and liquefied petroleum gases. In 1998, the CSA B149 Installation Code Committee agreed to publish a *Natural Gas and Propane Installation Code* that would amalgamate the first seven sections of CAN/CGA-B149.1 and CAN/CGA-B149.2 to become CAN/CSA-B149.1-00. This amalgamation was in response to the trend among the authorities having jurisdiction of combining licensing and training for natural gas and propane. The remaining sections 8 to 14 of CAN/CGA-B149.2 became CAN/CSA-B149.2-00, *Propane Storage and Handling Code*.

In this 2010 edition, where a major change or addition to the previous edition of the Code has been made, the clause, table, or figure affected is identified by the symbol delta (Δ) in the margin. Users of the Code are advised that the change markers in the text are not intended to be all-inclusive and are provided as a convenience only; such markers cannot constitute a comprehensive guide to the revisions made to the Code. Care must therefore be taken not to rely on the change markers to determine the current requirements of the Code. As always, users of the Code must consider the entire Code and any local amendments.

The CSA B149 Installation Code Committee, which is responsible for preparing this Code, consists of members of the provincial gas inspection authorities, natural gas utilities, propane distributors, appliance, equipment, and accessory manufacturers, certification organizations, and representatives from the Heating, Refrigeration and Air Conditioning Institute of Canada, the Mechanical Contractors association of Canada and federal government departments. This Code has been formally approved by the CSA B149 Installation Code Committee and by the Interprovincial Gas Advisory Council.

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Notes:

(1) Use of the singular does not exclude the plural (and vice versa) when the sense allows.

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

(3) This publication was developed by consensus, which is defined by CSA Policy governing standardization — Code of good practice for standardization as “substantial agreement. Consensus implies much more than a simple majority, but not necessarily unanimity”. It is consistent with this definition that a member may be included in the Technical Committee list and yet not be in full agreement with all clauses of this publication.

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(a) Standard designation (number);
(b) relevant clause, table, and/or figure number;
(c) wording of the proposed change; and
(d) rationale for the change.
1 Scope

1.1 This Code applies to the installation of
(a) appliances, equipment, components, and accessories where gas is to be used for fuel purposes;
(b) piping and tubing systems extending from the termination of the utility installation or from the
distributor’s propane tank;
(c) vehicle-refuelling appliances and associated equipment meeting the requirements of a
general-purpose appliance to fill a natural-gas-fuelled vehicle; and
(d) stationary gas engines and turbines.

1.2 This Code does not apply to
(a) marine or pipeline terminals;
(b) gas where used as a feedstock in petroleum refineries or chemical plants;
(c) utility pipeline distribution and transmission pipelines;
(d) storage and handling of liquefied natural gas or underground reservoirs for natural gas;
(e) the installation of NGV fuel systems, containers, and refuelling stations;
(f) the storage and utilization of compressed natural gas on boats;
(g) the installation of vehicle-refuelling appliances when NGV storage containers are installed as part of
the system;
(h) refrigerated storage or underground reservoirs for propane;
(i) propane used on boats;
(j) propane used as a propellant in aerosol containers;
(k) butane fuel cylinders of 150 g capacity or less; and
(l) the installation of containers and equipment to be used for propane in distribution locations and
filling plants and on tank trucks, tank trailers, and cargo liners.

1.3 Where the term “gas” is used, the requirements of this Code include, and apply equally to, any of the
following gases or mixtures of them: natural gas, manufactured gas, or mixtures of propane gas and air,
propane, propylene, butanes (normal butane or isobutane), and butylenes.

1.4 This Code and any Standards referenced in it do not make or imply any assurance or guarantee with
respect to the life expectancy, durability, or operating performance of equipment and materials
referenced in the Code.

1.5 The values given in yard/pound units are the standard. This Code contains SI (metric) equivalents to
yard/pound units so that the Code can be used in SI (metric) units. SI (metric) equivalents may be
approximate.