



**CSA B108.1:21**  
National Standard of Canada



# Compressed natural gas refuelling stations installation code



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*CSA B108.1:21*

***Compressed natural gas refuelling  
stations installation code***

**IGAC**

*Interprovincial Gas Advisory Council*



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# Contents

Interprovincial/Territorial Gas Advisory Council (IGAC)	5
Technical Committee on Natural Gas Transportation	7
Subcommittee on Natural Gas for Vehicle Refuelling Stations Installation Code	10
Preface	13
<b>1 Scope</b>	<b>15</b>
1.1 Inclusions	15
1.2 Exclusions	15
1.3 Pressure terminology	15
1.4 Terminology	15
1.5 Use of SI units	16
<b>2 Reference publications</b>	<b>16</b>
<b>3 Definitions</b>	<b>18</b>
<b>4 General requirements</b>	<b>22</b>
4.1 Discrepancy with the <i>Canadian Electrical Code, Part I</i>	22
4.2 Refuelling station — Site provisions	22
4.2.1 Site evaluation plan	22
4.2.2 Site investigations	23
4.2.3 Structural integrity	23
4.3 Marking	23
4.4 Component requirements	23
4.5 Component installation	23
4.6 Fill pressures	23
4.7 Component pressure rating	23
4.8 Requirements of the local AHJ	24
4.9 Ignition sources	24
4.10 Natural gas specifications	24
4.10.1 Odorization	24
4.10.2 Composition	24
4.10.3 LCNG odorization	24
4.10.4 Odorization consistency	24
4.10.5 Odorization monitoring	24
4.11 CNG containers	24
4.12 Gas handling equipment compliance	24
4.13 Station security	25
4.14 Lighting	25
4.15 Indoor refuelling	25
4.16 Bulk container dispatch and receiving	25
4.17 RFAs and VFAs	25
4.18 CNG equipment in vaults	25
4.19 Mobile refuelling	25

**5 Compressors 25**

- 5.1 Compressor surrounding area 25
- 5.2 Electrical classification around a compressor 28
- 5.3 Compressor enclosure 28
- 5.4 Compressor compliance 28
- 5.5 Compressor mounting 28
- 5.6 Compressor equipment access and egress 28
  - 5.6.1 Compressor equipment access 28
  - 5.6.2 Compressor equipment egress 28
- 5.7 Compressor protection from unauthorized access 28
- 5.8 Compressor high temperature shutdown 28

**6 Storage 29**

- 6.1 Gas storage facility location 29
- 6.2 CNG storage location 29
- 6.3 CNG storage facility shelter 29
- 6.4 CNG storage container support 29
- 6.5 CNG storage facility in proximity to liquid fuel storage, dispensing or receiving 29
- 6.6 CNG storage container spacing and accessibility 30
- 6.7 Electrical classification around a CNG storage facility 30
- 6.8 Buildings adjacent to CNG storage facility 31
- 6.9 CNG storage facility access protection 31
- 6.10 CNG storage facility vehicle protection 31
- 6.11 CNG storage facility warning signs 32
  - 6.11.1 General requirements for warning signs 32
  - 6.11.2 Height and colour of warning signs 32
- 6.12 CNG storage area fire protection 32

**7 Dispensing 32**

- 7.1 Dispensing point 32
- 7.2 Electrical classification surrounding a dispenser 33
- 7.3 Dispenser and fill post foundation, location, and protection 33
  - 7.3.1 Dispensing system foundation 33
  - 7.3.2 Dispenser and fill post location 34
  - 7.3.3 Dispenser and fill post protection 34
- 7.4 Refuelling nozzle requirements 34
- 7.5 Refuelling nozzle protection 34
- 7.6 Public dispenser activation 34
- 7.7 CNG refuelling hose 34
- 7.8 Breakaway device 34
- 7.9 Dispensing area warning signs 35
  - 7.9.1 General requirements dispensing area warning signs 35
  - 7.9.2 Height and colour of dispensing area warning signs 35
- 7.10 Dispenser compliance 35
- 7.11 Dispensing equipment shelter 35

**8 Flow control devices 35**

- 8.1 Compressor isolation and shut-off valves 35
- 8.2 Dispensing system shut-off valves 36

8.3	Refuelling hose shut-off valve	36
8.4	Refuelling nozzle vent mechanism	36
8.5	Piping or tubing system purge valve	36
8.6	Relief device ventilation	37
8.7	Piping system electrical classification areas	38
8.8	Refuelling station ESD	38
8.8.1	ESD protocol	38
8.8.2	Reactivation of system following ESD or loss of power	38
8.8.3	ESD button location	38
8.8.4	ESD signage	39
8.9	Dome load valves	39
<b>9</b>	<b>Design, installation, and testing of piping, tubing, and fittings</b>	<b>39</b>
9.1	Design, installation, and testing requirements	39
9.2	System vibration compensation	39
9.3	Buried piping	39
9.4	Additional requirements for buried stainless steel tubing	40
<b>10</b>	<b>Reserved</b>	<b>40</b>
<b>11</b>	<b>Reserved</b>	<b>40</b>
<b>12</b>	<b>Reserved — Fire protection, safety, and security</b>	<b>40</b>
<b>13</b>	<b>Mobile refuelling units (MRUG) and portable refuelling units (PRUG)</b>	<b>40</b>
13.1	General	40
13.1.1	MRUG and PRUG refuelling scope	40
13.1.2	Units in transit	40
13.1.3	Requirements for ground based equipment	40
13.1.4	Applicability of this Code to MRUG and PRUG	40
13.1.5	Approvals required for MRUG and PRUG	41
13.1.6	Shut-off valve for MRUG and PRUG with bulk containers	41
13.1.7	ESD valve activation	41
13.1.8	ESD buttons	41
13.1.9	Fire extinguisher	41
13.1.10	Hoses and couplers	41
13.1.11	MRUG or PRUG vent stack	41
13.1.12	Reserved	41
13.1.13	Reserved	41
13.1.14	Reserved	41
13.1.15	MRUG or PRUG electrical requirements	41
13.1.16	MRUG or PRUG grounding	42
13.2	MRUG and PRUG station site requirements	42
13.2.1	MRUG and PRUG site protection	42
13.2.2	MRUG or PRUG siting	42
13.2.3	MRUG or PRUG movement prevention	42
13.2.4	PRUG gas connections	42
13.2.5	MRUG or PRUG lighting	42
13.2.6	MRUG or PRUG emergency response plan (ERP)	43

13.3	Signage for vehicle refuelling from MRUG and PRUG	43
13.4	CNG fuel transfer	43
13.4.1	Transfer from bulk container to MRUG or PRUG	43
13.4.2	Transfer between PRUG and MRUG	43
<b>14</b>	<b>Vehicle defuelling</b>	<b>43</b>
14.1	Vehicle defuelling scope	43
14.2	Defuelling point	43
14.3	Electrical classification surrounding a defuelling point	43
14.4	Defuelling system electrical and hazardous classified areas	44
14.5	Defuelling system foundations	44
14.6	Defuelling system site provisions and protection	44
14.7	Defuelling nozzle design	44
14.8	Defuelling nozzle protection	44
14.9	Defuelling hose requirements	44
14.10	Defuelling hose breakaway device	45
14.11	Defuelling instructions	45
14.12	Defuelling area warning signs	45
14.12.1	General	45
14.12.2	Height and colour	45
14.13	Defuelling system approval	45
14.14	Defuelling system access and egress	45

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Annex A — Reserved	— Operation, maintenance, and personnel training	46
Annex B (normative)	— Indoor refuelling of natural gas vehicles	47
Annex C (normative)	— Bulk container dispatch and receiving	57
Annex D (normative)	— Installation of RFAs or VFAs connected to storage, piping, or tubing	58
Annex E (normative)	— Installation of CNG equipment in vaults	60
Annex F (informative)	— Guidelines for process safety management of natural gas refuelling stations and installation	62

# Preface

This is the first edition of CSA B108.1, *Compressed natural gas refuelling stations installation code*. It supersedes the previous editions published in 2018 as Part 1 of CSA B108, *Natural gas refuelling stations installation code*, and in 2014, 1999, and 1995 as CSA B108, *Compressed natural gas fuelling stations installation code*.

CSA B108.1 is applicable to compressed natural gas (CNG) refuelling stations. CSA B108.2 is applicable to liquefied natural gas (LNG) refuelling stations, including LNG to CNG conversion systems. CSA B108.2 supersedes Annex D of CSA Z276, *Liquefied natural gas (LN) — Production, storage, and handling*.

Significant changes to this edition include the following:

- a) reorganized content for consistency of organization between this Code and CSA B108.2;
- b) clarification of definitions, and requirements to include distinction between residential fuelling appliances (RFAs) and listed non-residential vehicle fuelling appliances (VFAs);
- c) added coverage for defuelling;
- d) added coverage for mobile refuelling units and portable refuelling units;
- e) added reference content for Risk assessment;
- f) added coverage for CNG stations where feedstock is liquefied natural gas (L/CNG refuelling stations); and
- g) editorial revisions to clarify wording and references, tables and figures, resolve conflicts identified with other documents, provide consistency and clarification between this Code and CSA B108.2, correct metrication values, and harmonize definitions with other industry codes and standards.

CSA Group acknowledges that the development of this Code was made possible, in part, by the financial support of Natural Resources Canada.

This Code was prepared by the Subcommittee on Natural Gas for Vehicle Refuelling Stations Installation Code, under the jurisdiction of the Technical Committee on Natural Gas Transportation and the Strategic Steering Committee on Transportation, and has been formally approved by the Technical Committee and the Interprovincial/Territorial Gas Advisory Council.

This Code 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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  - d) *rationale for the change.*

# CSA B108.1:21

## Compressed natural gas refuelling stations installation code

### 1 Scope

#### 1.1 Inclusions

This Code applies to all compressed natural gas (CNG) refuelling stations, including those that are fixed or mobile and intended for private or public dispensing operations.

#### 1.2 Exclusions

This Code does not apply to

- a) refuelling vehicles with liquefied natural gas (LNG). Refuelling vehicles with LNG is addressed in CSA B108.2. However, when an LNG facility has capacity for CNG vehicle refuelling, this Code applies to facilities downstream of the L/CNG odorizer's outlet isolation valve;
- b) transfer of CNG from the CNG vehicle fuel storage system of one vehicle to the CNG vehicle fuel storage system of another vehicle. This does not apply to a bulk container; and
- c) listed residential fuelling appliances (RFAs) and listed non-residential vehicle fuelling appliances (VFAs), except where
  - i) the aggregate inlet flow capacity of a connected VFA or RFA, or a combination thereof, exceeds 0.850 Sm<sup>3</sup>/min (30 SCFM); or
  - ii) the VFA or RFA is connected to storage, in which case coverage applies to the storage and dispensing system starting at the outlet of the individual VFA or RFA (see Figure [D.1](#)).

#### 1.3 Pressure terminology

All references to pressure throughout this Code are to be considered gauge pressures, unless otherwise specified.

#### 1.4 Terminology

In this Code, "shall" is used to express a requirement, i.e., a provision that the user is obliged to satisfy in order to comply with the Code; "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 Code.

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 (non-mandatory) to define their application.