Installation code for hydronic heating systems
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Contents

Technical Committee on the Installation Code for Hydronic Heating Systems 6

Preface 9

1 Scope 10

2 Reference publications 11

3 Definitions 15

4 General requirements 17
  4.1 Component selection 17
  4.2 Selection of equipment 17
  4.2.1 Suitability of equipment 17
  4.2.2 Capacity of equipment 18
  4.2.3 Oxygen permeation 18
  4.2.4 Hydronic fluid 19
  4.2.5 Potable water as a hydronic fluid 19
  4.2.6 Prevention of thermosiphons 19
  4.2.7 Flow check valves 20
  4.3 Installation of equipment 20
    4.3.1 General 20
    4.3.2 Training of personnel 20
    4.3.3 Quality of work 20
    4.3.4 Accessibility 20
    4.3.5 Electrical wiring and equipment 20
    4.3.6 Protection during construction 20
    4.3.7 Replacement parts 20
  4.4 Safety/relief valves 21
    4.4.1 Pressure-relief valves 21
    4.4.2 Steam (pop safety) valves 21
    4.4.3 Combination pressure- and temperature-relief valves 21
    4.4.4 Discharge piping 21
  4.5 Start-up procedures 21
    4.5.1 Pressure test 21
    4.5.2 Flushing 22
    4.5.3 Testing controls 22
    4.5.4 Inspection of heat source 22
  4.6 Responsibility of installer 23
    4.6.1 Installation 23
    4.6.2 System documentation and operational instructions 23

5 Heating equipment 23
  5.1 General 23
  5.2 Energy source 24
    5.2.1 Gas-fired equipment 24
5.2.2 Oil-fired equipment 24
5.2.3 Solid-fuel-fired equipment 24
5.2.4 Electric-resistance heating equipment 24
5.2.5 Solar heating systems 24
5.2.6 Geothermal heating systems 24
5.2.7 Heat pumps 24
5.3 Heating appliances 24
5.3.1 Boilers 24
5.3.2 Dual-purpose water heater equipment 24
5.3.3 Integrated mechanical systems 24

6 Circulators (circulating pumps) 25
6.1 General 25
6.2 Materials of construction 25
6.3 Circulator sizing 25
6.4 Circulator location 25
6.5 Circulator support 25

7 Expansion tanks 25
7.1 General 25
7.2 Closed expansion tanks 25
7.3 Open expansion tanks (open to atmosphere) 26
7.3.1 General 26
7.3.2 Conversion of open expansion tank systems 26
7.4 Secondary loops 26

8 Distribution piping 26
8.1 Proximity to heat source 26
8.2 Unconditioned spaces 26
8.3 Inspection and test 26
8.4 General 26
8.4.1 Expansion and contraction 26
8.4.2 Minimizing stresses 27
8.4.3 Support 27

9 Pipe, tube and tubing 27
9.1 Metallic pipe and tube 27
9.2 Non-metallic pipe and tubing 27
9.2.1 Polyvinyl chloride (PVC) pipe 27
9.2.2 Crosslinked polyethylene (PEX) tubing 27
9.2.3 Chlorinated polyvinyl chloride (CPVC) pipe and tubing 27
9.2.4 Metal/plastic composite pipe 27
9.2.5 Polypropylene random copolymer (PP-R) pipe and tubing 28
9.2.6 Polyethylene of raised temperature (PE-RT) tubing 28
9.2.7 Oxygen corrosion 28
9.3 Metallic pipe and tube support 28
9.3.1 Copper tube 28
9.3.2 Steel pipe 28
9.3.3 Vertical run support 28
Section 9

9.3.4 Hanger isolation 28
9.4 Non-metallic pipe and tubing support 28
  9.4.1 PEX tubing 28
  9.4.2 Metal/plastic composite pipe 28
  9.4.3 PVC or CPVC pipe or tubing 29
  9.4.4 PP-R pipe 29
  9.4.5 PE-RT tubing 29
  9.4.6 Vertical run support 29

Section 10

10 Fittings 29
  10.1 Polyvinyl chloride (PVC) pipe fittings 29
  10.2 Crosslinked polyethylene (PEX) tubing fittings 29
  10.3 Chlorinated polyvinyl chloride (CPVC) pipe and tubing fittings 29
  10.4 Metal/plastic composite pipe fittings 29
  10.5 Polypropylene (PP-R) pipe and tubing fittings 30
  10.6 Black malleable fittings 30
  10.7 Copper tube fittings 30
  10.8 Compression fittings 30
  10.9 PE-RT tubing fittings 30

Section 11

11 Valves 30
  11.1 Isolation valves 30
  11.2 Flow-balancing and throttling valves 31
  11.3 Mixing and temperature-control valves 31
    11.3.1 General 31
    11.3.2 Automatic mixing valves 31
    11.3.3 Manual mixing valves 31
    11.3.4 Two-way injection valves 31
  11.4 Diverting valves 31

Section 12

12 System controls 31
  12.1 Water temperature controls 31
    12.1.1 General 31
    12.1.2 Radiant floor heating panels 31
  12.2 Operating steam controls 32
    12.2.1 Pressure controls 32
    12.2.2 Water-level controls 32
  12.3 Occupied space temperature 32
  12.4 Return-water low-temperature protection 32
  12.5 Pressure and flow controls 32
    12.5.1 Balancing 32
    12.5.2 Low-water cut-off device 33
    12.5.3 Flow-sensing devices 33
    12.5.4 Automatic makeup water 33
    12.5.5 Differential pressure regulation 33
    12.6 Air elimination 33
    12.6.1 Air-removal device 33
    12.6.2 Air-separation device 34
    12.6.3 Secondary loops 34
13 Hydronic space heating 34
13.1 General 34
13.1.1 Selection 34
13.1.2 Installation 34
13.2 Location 34
13.3 Freeze protection 34
13.4 Balancing 34
13.5 Steam units 35
13.5.1 Steam traps 35
13.5.2 Sloping for two-pipe system 35
13.5.3 Sloping for one-pipe system 35
13.5.4 Automatic air vents and vacuum breakers 35
13.5.5 Condensate flow 35
13.5.6 Steam-distribution piping 35

14 Radiant heating 35
14.1 Installation 35
14.2 Radiant under-floor heating 36
14.3 Tube placement 36
14.4 Poured floor systems (thermal mass) 37
14.4.1 Spacing 37
14.4.2 Slab penetration tube protection 37
14.4.3 Slab joint tube protection 37
14.4.4 Tube fasteners 37
14.4.5 Insulation 38
14.4.6 Pressure testing 38
14.5 Joist systems and subfloors 38
14.5.1 Spacing 38
14.5.2 Types of tube fasteners 38
14.5.3 Tube spacing 39
14.5.4 Insulation 39
14.6 Wall and ceiling panels 39

15 Heat exchangers 39

16 Indirect-fired domestic hot-water heaters 40

17 Snow and ice melt 41
17.1 Control 41
17.2 Freeze protection 41
17.3 Tube placement 41
17.3.1 General 41
17.3.2 Spacing of tube fasteners 41
17.3.3 Loop lengths 41
17.4 Poured concrete slab systems (thermal mass) 42
17.4.1 Spacing 42
17.4.2 Slab joint tube protection 42
17.4.3 Concrete slab preparation 42
17.5 Insulation 42
18 Auxiliary systems 43
18.1 General 43
18.2 Use of chemical additives and corrosive fluids 44
18.3 Testing 44
18.4 Pools and spas 44
18.4.1 Piping order 44
18.4.2 Temperature control 44
18.4.3 Maximum temperature 44
18.4.4 Identification of connections 44
18.4.5 Freeze protection 44
18.5 Hydronic makeup air units 44
18.6 Radiant cooling 44

Annex A (informative) — Storage-type dual-purpose water heater selection and site
documentation 46
Annex B (informative) — Heat-transfer fluids 50
Annex C (informative) — Radiant cooling 52
Annex D (informative) — Minimum flow rates for heat distribution tubing 54
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Preface


The main changes from the previous edition are as follows:
- a) clarification of the use of storage-type dual-purpose water heaters;
- b) clarification of oxygen diffusion barriers;
- c) clarification of requirements for hydronic fluid quality;
- d) inclusion of polyethylene of raised temperature (PE-RT) tubing and tubing fittings;
- e) clarification of requirements for return-water low-temperature protection;
- f) clarification of insulation requirements;
- g) clarification of requirements for tube fasteners;
- h) inclusion of snow and ice melting systems as stand-alone systems;
- i) clarifications of auxiliary systems;
- j) clarification of radiant under-floor heating and floor surface temperatures;
- k) revisions to nominal tube sizing in Table 1;
- l) revisions to loop lengths for snow and ice melt systems in Table 3;
- m) inclusion of Annex C with guidelines related to radiant surface cooling; and
- n) inclusion of Annex D with guidelines related to minimum flow rates for heat distribution.

This Code was prepared by the Technical Committee on the Installation Code for Hydronic Heating Systems, under the jurisdiction of the Strategic Steering Committee on Fuel Burning Equipment, and has been formally approved by the Technical Committee.

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 Standard is stated in its Scope, it is important to note that it remains the responsibility of the users of the Standard to judge its suitability for their particular purpose.*
3) *This Standard 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 Standard.*
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   b) relevant clause, table, and/or figure number;
   c) wording of the proposed change;
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B214-16
Installation code for hydronic heating systems

1 Scope

1.1
This Code sets out the minimum provisions for the installation, extension, alteration, and renewal of hydronic heating systems.

1.2
This Code applies to open and closed hydronic heating systems. These systems include
a) hydronic space heating;
b) radiant heating (wall, floor, ceiling);
c) convectors;
d) fan coils;
e) combination potable water heating and space heating (combo) systems;
f) integrated mechanical systems;
g) indirect-fired domestic water heating;
h) pool and spa heating;
i) snow and ice melt systems; and
j) other auxiliary systems.

1.3
The terms “pipe” and “piping”, as well as “tube” and tubing”, are used interchangeably in this Code, unless otherwise stated.

1.4
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.

1.5
The values given in SI units are the units of record for the purposes of this Code. The values given in parentheses are for information and comparison only.