



Setting the Standards for Home Energy Efficiency

Interpretation: Hot Water Distribution Piping Insulation Requirements

Designation: IR 301-2019-030

Approved: May 21, 2023 by RESNET SDC 300

Effective Date: June 21, 2023

Reference:

Standard ANSI/RESNET/ICC 301
Page Number(s): 47, 50 and B-42
Sections(s): 4.2.2.5.2.11. Service Hot Water Use & Normative Appendix B Inspection Procedures for Minimum Rated Features
Table(s): 4.2.2.5.2.11(2) Hot Water Distribution System Insulation Factors, 4.2.2.5.2.11(6) Hot water distribution system relative annual energy waste factors
Relating to: Water Pipe Insulation

Request from:

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Background Statement: *Provided by person requesting the interpretation.*

Appendix B instructions are to “Inspect the hot water piping for the presence of insulation and record the percentage of piping that is insulated.” This information is used to determine the Hot Water Distribution System Insulation Factor (sysFactor) and the Hot water distribution system relative annual energy waste factors (EWfact). However, the tables do not refer to any percentage of piping required to be insulated to determine effectiveness. Is it required that 100% of the hot water piping be insulated to use the factors listed under the >= R-3 pipe insulation column? Does that include elbows and tees?



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Proposed Interpretation: *Provided by person requesting the interpretation.*

100% of the hot water distribution system piping, elbows, and tees must be insulated to a minimum of R-3 to utilize the factors in the \geq R-3 pipe insulation column in tables 4.2.2.5.2.11(2) Hot Water Distribution System Insulation Factors and 4.2.2.5.2.11(6) Hot water distribution system relative annual energy waste factors.

SDC Response:

Is the proposed interpretation correct? Yes No

SDC Comments: Thank you for submitting this Interpretation Request.