TO: Joint Committee on Plastics and RV Plumbing Components

FROM: Kevin Kalakay, Chair of the Joint Committee

DATE: August 5, 2022

SUBJECT: Proposed revision to NSF/ANSI 358-1: *Polyethylene Pipe and Fittings for Water-Based Ground-Source "Geothermal" Heat Pump Systems* (358-1i7r1)

Revision 1 of NSF/ANSI 358-1, issue 7 is being forwarded to the Joint Committee for consideration. Please review the proposal and **submit your ballot by August 26, 2022** via the NSF Online Workspace <www.standards.nsf.org>.

Please review all ballot materials. When adding comments, please include the section number applicable to your comment and add all comments under one comment number whenever possible. If you need additional space, please use the attached blank comment template in the reference documents and upload online via the browse function.

Purpose

The proposed revision will update the hydrostatic design section of NSF/ANSI 358-1.

Background

The issue proponent suggests updating the hydrostatic design section of NSF/ANSI 358-1 to include both HDS at 73 °F as well as HDB at 140 °F.

This issue paper was presented at the 2022 Joint Committee on Plastics and Recreational Vehicle Plumbing Components annual meeting, and a motion to send the language to ballot was approved there. If you have any questions about the technical content of the ballot, you may contact me in care of:

Kevin Kalakay
Chair, Joint Committee on Plastics and RV Plumbing Components
c/o Jason Snider
Joint Committee Secretariat
Tel: (734) 418-6660
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[Note – the recommended changes to the standard which include the current text of the relevant section(s) indicate deletions by use of ~~strikeout~~ and additions by gray highlighting. Rationale statements are in *italics* and only used to add clarity; these statements will NOT be in the finished publication.]

NSF/ANSI Standard
for Plastics —

Polyethylene Pipe and Fittings for Water-Based Ground-Source "Geothermal" Heat Pump Systems

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4.4 Hydrostatic design

The maximum hydrostatic design ~~basis~~ stress (~~HDB~~ HDS) of polyethylene material shall be determined in accordance with PPI Technical Report Number 3 (TR-3)[Error! Bookmark not defined.] for the temperature and ~~HDB~~ HDS values in Table 4.1.

Table 4.1
~~Minimum~~ Maximum hydrostatic design stress per PPI ~~TR-4~~ TR-3 at 73°F (23 °C)

Plastic material	HDS ~~at 73 °F (23 °C)~~	~~HDS at 140 °F (60 °C)~~
PE3608	800	~~400~~
PE3710	1000	~~630~~
PE4608	800	~~400~~
PE4710	1000	~~630~~

The minimum hydrostatic values (HDB) of polyethylene material shall be determined in accordance with PPI Technical Report Number 3 (TR-3)[7] for the temperature and HDB values listed in Table 4.2.

Table 4.2
Minimum hydrostatic values per PPI TR-3 at 140 °F (60°C)

Plastic material	HDB
PE3608	800
PE3710	1000
PE4608	800
PE4710	1000

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