

Fremont Industries, Inc., Glycol Approval for Geothermal Applications in Iowa – 10/18/2010

In conversation with Russell Tell – Iowa Department of Natural Resources on 10/4/2010, Russell clarified regulation 567 – 49.29 (5) identified below by stating; Iowa does not require specific state approval for glycol use in geothermal systems like MN and WI. He further stated, as long as Fremont uses food-grade or USP-grade propylene glycol and or have our products NSF-approved, nothing else is required.

Russell suggested that Fremont have its documentation readily available should a contractor need information regarding our product approvals they can be provided in a timely manner.

IOWA REGULATIONS; GLYCOL USE IN GEOTHERMAL APPLICATIONS

NONPUBLIC WATER SUPPLY WELL REGULATIONS 2009

567—49.29(455B) Closed circuit vertical heat exchangers. These provisions apply to closed circuit vertical heat exchanger construction.

49.29(1) Piping used must be 160 psi pressure-rated high-density polyethylene or polybutylene.

49.29(2) Connection to piping must use socket fusion or butt fusion joining methods.

49.29(3) Piping must be pressure-tested with air or potable water for 15 minutes at a pressure of 1.5 times the system operating pressure after installation in the borehole.

49.29(4) The annular space between the vertical heat exchanger piping and the borehole must be grouted as required in subrule 49.9(3) using an approved grouting method and material. Grout shall be placed at least in the top 40 feet. Any confining layers between aquifers shall be replaced with grout. Grouting must be performed within 24 hours of completion of the borehole.

49.29(5) Only food-grade or USP-grade propylene glycol or calcium chloride may be used as heat transfer fluid. Any other materials or additives must be NSF-approved for drinking water applications. A permanent sign must be attached to the heat pump specifying that only approved heat transfer fluids may be used.

REGULATORY CONTACT

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NSF International White book ®

Listing of Proprietary Substances and Nonfood Compounds

These listings were updated on **Thursday, August 27 2009**. All products listed on this page have been independently reviewed and registered by NSF to the *NSF International Registration Guidelines for Proprietary Substances and Nonfood Compounds*.

The NSF Nonfood Compounds Registration Program is a continuation of the USDA compound approval and listing program, which is based on meeting regulatory requirements including FDA 21 CFR for appropriate use, ingredient and labeling. The Quick Reference Guide to Categories is available at the end of the book. For Registration Guidelines please visit www.nsf.org. If you would like to submit questions, suggestions or errors to nonfood@nsf.org.

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9134FG INHIBITED PROPYLENE GLYCOL
9134FG-25D INHIBITED PROPYLENE GLYCOL
9134FG-30D INHIBITED PROPYLENE GLYCOL
9134FG-35D INHIBITED PROPYLENE GLYCOL
9134FG-40D INHIBITED PROPYLENE GLYCOL
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