NSF International

Joint Committee Correspondence

TO: Joint Committee on Drinking Water Additives – Treatment Chemicals

FROM: Jon DeBoer, Chairperson of the Joint Committee

DATE: January 6, 2012

SUBJECT: Proposed revision to NSF/ANSI 60, *Drinking Water Treatment Chemicals – Health Effects*
60i51r1

Enclosed is the ballot for NSF/ANSI 60, issue 51, revision 1, exemption for mineral oils from the microbial growth potential test. Please review the proposal and return your ballot **by the ballot due date of January 27, 2012** via the NSF online workspace (http://standards.nsf.org).

Purpose

The DWA-TC Joint Committee created a task group to review the requirements of NSF/ANSI 60, Annex C, Evaluation of microbial growth potential, and how it is applied to mineral oils. Mineral oils have a very high failure rate when tested against the modified ASTM G22-76 standard, which was developed for determining the resistance of plastics to bacteria but has since been withdrawn as an ASTM standard. Products which fail this test are then subjected to a confirmatory test to screen for any false positives. However, any product with a carbon source is likely to fail this confirmatory test. The result is that very few well lubricant products can pass this microbial growth potential test unless they contain a biocide. The biocide may not be effective in the field if it separates from the mineral oil when it is applied to a well. With few certified products available, water systems often are using food grade lubricants which have not been certified to the requirements of Standard 60.

Background

The task group met several times throughout 2011, and posed three questions for the Joint Committee at the annual meeting on November 30, 2011.

1. Should NSF/ANSI 60 contain a microbial growth potential test for well applications, specifically drip oils?
2. If the Joint Committee feels that NSF/ANSI 60 should keep the microbial requirement for well application products, can the criteria change from pass/fail to a product literature requirement?
3. If the requirement is needed and is to be determined through testing, should the test be to a “no growth” requirement or to a maximum allowable AOC (assimilable organic carbon) requirement?

The committee discussed the possibility of testing to a maximum AOC level, but there is no guidance available on what constitutes an acceptable level. Well owners should be monitoring the well for oil usage and microbial growth whenever these products are used. Therefore, it was suggested that the JC ballot an exemption for well pump lubricants (from the microbial growth potential test) and instead require a product literature requirement to indicate the potential of these products to cause microbial growth.

After discussion at the 2011 DWA Joint Committee meeting, the JC unanimously voted in favor of balloting an exemption for well pump lubricants from the microbial growth potential test. Please see the attached 2011 DWA JC meeting summary excerpt and the associated issue paper (DWA 60-2011-7) for additional information.

If you have any questions about the technical content of the ballot, you may contact me in care of:

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Joint Committee on Drinking Water Additives
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[Note – the changes are seen below using strikeout for removal of old text and gray highlights to show the suggested text. ONLY the highlighted text is within the scope of this ballot.]

NSF/ANSI Standard for Drinking Water Additives —

Drinking Water Treatment Chemicals – Health effects

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8 Miscellaneous water supply products

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8.3.1.1 Well application products

All products used in well applications shall not support microbiological growth when evaluated in accordance with Annex C. Well cleaning aids used in conjunction with sodium hypochlorite, calcium hypochlorite or chlorine, as well as all well pump lubricating oils, are excluded from this requirement.

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8.3.2 Published instructions

For products designed to be flushed out prior to using the system for drinking water, the manufacturer's product data sheet shall contain instructions for proper flushing and draining before placing a system back into service. A product that qualifies under this section for a specific and limited use shall be clearly identified in the manufacturer's product data sheet. Polyacrylamide-containing well-drilling additives shall be identified in the manufacturer's product data sheet to indicate that these products are not acceptable for use in constructing wells in highly porous formations such as cavernous limestone.

Instructions and certification listings for well pump lubricating oils shall indicate that the products have not been evaluated for the potential to support microbial growth.

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Annex C

C.2 Products Covered

This method is applicable to all products used in well applications, which are required to be evaluated for the potential to support microbial growth per Section 8.3.1, such as well-drilling aids, muds, and grouts. Products shall be prepared according to maufacturer's instruction.

Reason: Revised per 2011 DWA JC meeting (November 30, 2011) unanimous vote to ballot the exclusion of well pump mineral oil applications from the microbial growth test requirement.