TO: Joint Committee on Wastewater Technology

FROM: Dr. Robert W. Powitz, Chairperson

DATE: October 12, 2020

SUBJECT: Proposed revisions to NSF/ANSI 40 Residential Wastewater Treatment Systems (40i41r1)

Revision 1 of NSF/ANSI 40 issue 41 is being forwarded to the Joint Committee for balloting. Please review the changes proposed to this Standard and submit your ballot by November 2, 2020 via the NSF Online Workspace <www.standards.nsf.org>.

Please review all ballot materials. When adding comments, please include the section number applicable your comment and add all comments under one comment number whenever possible. If additional space is needed, you may upload a word or .PDF version of your comments online via the browser function.

**Purpose**
This ballot will revise language in NSF/ANSI 40 to bring it in better alignment with NSF and ANSI guidelines. Normative references are also being updated.

**Background**
This ballot was drawn up to revise language in NSF/ANSI 40 regarding the use of “shall” in informative NOTEs. As NOTEs cannot contain requirements (shall), the term “NOTE” is being removed to make the language normative.

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

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Chair, Joint Committee on Wastewater Technology
c/o Jason Snider
Joint Committee Secretariat
NSF International
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2 Normative references

The following documents contain provisions that, through reference in this text, constitute provisions of this Standard. At the time of publication, the indicated editions were valid. All standards are subject to revision, and parties are encouraged to investigate the possibility of applying the recent editions of the standards indicated below.

The following documents contain requirements that, by reference in this text, constitute requirements of this Standard. At the time of publication, the indicated editions were valid. All of the documents are subject to revision and parties are encouraged to investigate the possibility of applying the recent editions of the documents indicated below. The most recent published edition of the document shall be used for undated references.

Rationale: updated to boilerplate Normative References language.


NFPA 70, National Electrical Code (NEC), 2011–2020⁵

US EPA, Code of Federal Regulations (CFR), Title 40, Protection of Environment, July 1, 2010 2020⁶
4.2 Exterior surfaces

Exterior surfaces shall show no visible signs of structural change following performance testing and evaluation including, but not limited to, flaking, pitting, or the formation of structurally significant cracks.

NOTE——Small surface cracks exhibited by concrete tanks are normally expected in some circumstances and shall not be considered structural deterioration.

Rationale: Informative NOTES cannot contain “shall”

5.9 Flow design

Systems shall have a designated flow path that is reflective of the entire treatment process. During periods of normal system operation, as well as periods of system and component malfunction, the design and construction of the system shall preclude alternative flow paths and prevent the discharge of wastewater from an opening external to the designated flow path.

NOTE——The discharge of wastewater from access ports shall be permissible during system malfunction

Rationale: Informative NOTES cannot contain “shall”

8.2.2.1 Design loading

The system shall be dosed 7 days per week with a wastewater volume equivalent to the daily hydraulic capacity of the system. The following schedule shall be adhered to for dosing:

<table>
<thead>
<tr>
<th>Time frame</th>
<th>Rated daily hydraulic capacity (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:00 am to 9:00 am</td>
<td>approximately 35</td>
</tr>
<tr>
<td>11:00 am to 2:00 pm</td>
<td>approximately 25</td>
</tr>
<tr>
<td>5:00 pm to 8:00 pm</td>
<td>approximately 40</td>
</tr>
</tbody>
</table>

NOTE——The individual dosage shall be no more than 10 gal per dose, unless the dosage system is based on a continuous flow, and be uniformly applied over the dosing periods.

Rationale: Informative NOTES cannot contain “shall”

8.2.3 Dosing volumes

The 30-day average volume of the wastewater delivered to the system shall be within 100% ± 10% of the system's rated hydraulic capacity.

NOTE — All dosing days, except those with dosing requirements less than the daily hydraulic capacity, shall be included in the 30-day average calculation.
Rationale: Informative NOTEs cannot contain “shall”

8.3 Sample collection

8.3.1 General

8.3.1.1 A minimum of 96 data days shall be required during system performance testing and evaluation. The maximum length of the test to obtain the 96 data days shall be no more than 34 weeks. No routine service or maintenance shall be performed on the system whether the time period to achieve the 96 data days falls within or exceeds 26 weeks.

NOTE—In the event that a catastrophic site problem occurs, as described in Section 8.5.1.2, the maximum length of the test shall be no more than 37 weeks.

Rationale: Informative NOTEs cannot contain “shall”

8.5.2 Class I systems

The following criteria shall be met in order for a system to be classified as a Class I residential wastewater treatment system.

All requirements for each parameter shall be achieved except as provided for in Section 8.5.2.2.

NOTE—Sections 8.5.1.3, 8.5.1.4, and 8.5.1.5 are testing minimums. These minimums shall be attained to be considered a valid test.

Rationale: Informative NOTEs cannot contain “shall”

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