Joint Committee Issue Document

NOTE: An issue document may be submitted at any time – it comprises two parts: the cover sheet (this page) and a description of the issue to be submitted to the Joint Committee (following page). A separate issue form is required for each issue submitted. Issue papers include proposals for modification of a standard, information reports and (of current research, etc.). An issue paper shall be categorized as being for ACTION or for INFORMATION. Submitters should limit the Issue Paper to 1 or 2 pages – attachments detailing full recommendations or background information may be attached with supplementary information. The Chairperson of the appropriate Joint Committee will respond within 30 days of receipt of the issue document advising what steps will be taken. Any issue document intended for discussion at a Joint Committee meeting must be received at least 21 days prior to the meeting to ensure inclusion in the agenda.

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Signature of Submitter *_Craig Selover_____ Date _11/27/07___

**Type written name will suffice as signature*

Please insert a check (X) in the appropriate place to indicate if you wish the item to be considered as an action item or as an information item.

Action __Proposal to Joint Committee Information _____

NSF Standard(s) Impacted**:**

Std 61

Issue Statement:
Provide a concise statement of the issue, which reference as appropriate any specific section(s) of the standard(s) that are related to the issue.
Issue DWA 2007-4, a proposal to modify Sections 4, 8 and 9 and add Annex G relating to a method to meet a lead content limit for water distribution and plumbing system components proposed by East Bay MUD should be sent to the Lead TG for further work. In a conference call November 15, the proponents of subject proposal agreed that further description of how a coating might be considered a water contact surface was desirable. The author of this Issue suggests language below.

Further, Issue 2007-4 contains product inclusion/exclusion definitions in Annex G, which we believe should be included as modifications (as may be necessary) more appropriately in Sections 4, 8 and 9. Properly incorporating what products are included or excluded from coverage in the sections will avoid confusion in reconciling any Standard amendments in the future.

Background:
Provide a brief background statement indicating the cause and nature of concern, the impacts identified relevant to public health, public understanding, etc, and any other reason why the issue should be considered by the Committee.

Recommendation:
If action by the Joint Committee is being requested, clearly state what action is needed: e.g., recommended changes to the standard(s) including the current text of the relevant section(s) indicating deletions by use of ~~strike-out~~ and additions by highlighting or underlining; e.g., reference of the issue to a Task Force for detailed consideration; etc. If recommended text changes are more than a half page, please attach a separate document.

With respect to moving inclusion/exclusion language from Annex G to Sections 4, 8 and 9, this should be left up to the Lead TG.

Modification to Annex G for coatings qualification:

NSF/ANSI 61 - ANNEX G

G.1 Protocol for the evaluation of pipe, fixtures, faucets, and fittings for compliance with a no-lead ().25% maximum) content standard

This is an option for manufacturers who sell products in states where there is a no-lead content standard such as in California, or who otherwise would like to obtain product certification so their products can be sold in states such California. Those products meeting this standard shall be stamped "NSF 61-NL".

This section applies to pipes and pipe fittings, plumbing fittings, and fixtures used to convey or dispense water for human consumption (drinking or cooking). This includes kitchen faucets, bathroom faucets, and any other end-use devices intended to convey or dispense water for human consumption. This annex applies to plumbing components used in permanent structures, but not to plumbing components used in recreational vehicles, boats, airplanes, etc. Temperature limiting devices or hot water dispensers that are intended to convey or dispense water for human consumption are included; however, since hot water is considered to be used primarily for washing, hot water heaters were not intended to be covered by the new standard. Further, tub or shower components, fixtures such as sinks, showers, tubs, bidets, and toilets are not included since they are not intended to convey or dispense water for human consumption. The new standard also does not cover service saddles, backflow preventers for nonpotable services such as irrigation and industrial, and water distribution main valves (e.g., gate valves and butterfly valves) that are two inches in diameter and above are excluded. The standard does not apply to temporary bypasses for water mains or temporary water supplies, such as fire hydrants. For final determination of exemptions and application, manufacturers must review applicable state and local codes and regulations.

The following protocol is used to determine if the products meets the no-lead content standard, which is that the weighted average lead content of the wetted surfaces shall not be more than 0.25 percent.

All Components ≤0.25% - If each fixture component that has a wetted surface has a verifiable lead content of not more than 0.25%, then that fixture meets this standard and the following evaluation is not required.

Some Components ≥ 0.25% - If some wetted components of a fixture contain more than 0.25% lead, then the leaded components can be replaced with non-lead components in order to meet the standard; or

The manufacturer shall calculate the *weighted average lead content* of the wetted components of a fixture to determine if the fixture meets the standard. All of the wetted surfaces are included in the *weighted average lead* content calculation, not just those surfaces that contain lead. A permanent coating may be used to cover lead bearing surfaces, and may be considered the wetted surface material if the manufacturer can prove durability of that coating for at least as long as the useful life of the product. If the *weighted average lead content* of the wetted surfaces is greater than 0.25%, the manufacturer can replace wetted components containing lead with non-lead materials until the *weighted average lead content* is less than or equal to 0.25%. Using a *weighted average lead content* allows the fixture manufacturer to use some components that contain more than 0.25% lead, so long as the *weighted average lead content* is not more than 0.25%. The certifying agency will verify the accuracy of the calculation and check to ensure the unit passes the California reduced lead definition. Once the unit has been shown to pass the no-lead standard, the unit can be certified "NSF 61-NL."

The *weighted average lead content* of the wetted component of a fixture can be calculated using information that is provided as part of the manufacturer's submittal under Section 3.2.

An example of how this *weighted average lead content calculation is conducted is as* follows.

1. Identify those components of the faucet that water flows through and comes into contact with during the normal operation (wetted components).

2. Use the **percentage of lead content within each component** (supplied by the component manufacturer or supplier). Table 1 – column 4 provides the lead content for each of the wetted components.

3. Determine the **percent of total wetted surface area represented in each component** using the part specifications.

   a. The *wetted surface area* of each component that comes into direct contact with water is required under 3.2 (to be provided by the manufacturer). Table 1 - column 2 shows the *wetted surface area* of the subject faucet.

   b. Add the areas of the wetted surface for each component together: this is the *total wetted surface area of the faucet*.

   c. For each component, divide the *area of its wetted surface* by the *total wetted surface area of the faucet (times 100)*: this is the **percent of total wetted surface area of each component** (see Table 1 – column 3).

$$\text{Percent wetted surface area} = \frac{\text{Wetted surface area of component}}{\text{Total wetted surface area}} * 100$$

4. For each component, multiply the **percentage of lead content** by the **percent of total wetted surface area of that component:** this is the *contributing percent lead for each component* (see Table 1 – column 5).

   Contributing percent lead = Percent wetted surface area x Percent lead content

5. Calculate the **weighted average lead content** of the faucet by totaling the *contributing percent lead for the components that make up the wetted surface* of the faucet (Table 1 – column 5). For the faucet to be in compliance with the new lead standard, this total must be no more than 0.25%.

Table 1. Example of weighted average lead content calculations.

1	2	3	4	5
Component No.	**Wetted surface area[1] (total = 61.94 in^2)**	**% wetted surface area (total = 100%)**	**% lead content**	**Contributing % lead**
1	17.31	27.95	0.05	0.01
2	1.15	1.85	2.86	0.05
3	4.99	8.05	0.23	0.02
4	18.25	29.46	0.05	0.01
5	11.14	17.98	0	0.00
6	4.02	6.49	0	0.00
7	1.09	1.75	1.30	0.02
8	0.54	0.87	0	0.00
9	0.91	1.48	2.54	0.04
10	0.76	1.23	0	0.00
11	1.02	1.64	2.54	0.04
12	0.35	0.56	2.54	0.01
13	0.43	0.69	2.54	0.02
			Weighted average lead content =	**0.23%** **(in compliance)**

Supplementary Materials (photographs, diagrams, reports, etc.):
If not provided electronically, the submitter will be responsible to have sufficient copies to distribute to committee members.

Submitter _____ Date _____