Thursday, December 4, 2014

I Opening Remarks

Joint Committee (JC) Chairperson France Lemieux called the meeting to order and welcomed everyone. M. Leslie read the antitrust statement. F. Lemieux announced the name of recently appointed members Kevin Chew, of Truesdail Laboratories, and Tom Spoden, of the Water Quality Association (WQA).

II Review of Agenda

Motion: The December 2014 proposed agenda is acceptable with the addition of the following items under new business: 1) Extraction Water Task Group update report; and 2) Issue paper submitted by Dr. Andrew Whelton regarding polyethylene (PEX) plumbing systems. R. Sakaji motioned to accept the agenda; B. Powell seconded the motion.

Vote: All in favor.

Motion passed.

III Review of Meeting Summary

Motion: Accept the 2013 Joint Committee on Drinking Water Additives- System Components (DWA-SC JC) meeting summary with the correction stated below. P. Greiner moved to accept the meeting summary and M. Morrison seconded the motion.

R. Sakaji noted that under section XI B, fire sprinklers, it was incorrectly stated that the state fire marshal had jurisdiction to issue the ruling in California.

Vote: All were in favor.

Motion passed.

IV Review of Recent and Current Ballots/ Standards Administration

M. Leslie referred the group to Tab 2 of the meeting packet, which includes the list of currently open ballots and recent revisions that will be published in the next edition of NSF/ANSI 61. There are ballot issues that are currently open for balloting and/or have issues that need to be resolved before final approval: 61i118r1 – formulation of chemical constituents, 61i119r2-section 8 variability with in-line devices, and 61i110r1-fire sprinklers.
V Revisions Affecting Multiple Sections

A. 90 day exposure (DWA-61-2014-1)

**Motion:** Ballot the proposed language as written. J. Ballanco motioned; C. Selover seconded the motion.

**Discussion:** P. Greiner explained that most analytes are evaluated using a single time point exposure. However, when a contaminant exceeds or is expected to exceed its acceptable level, NSF/ANSI 61 requires that the contaminant leaching rate over time be considered. This is achieved by a multiple time point exposure protocol in which samples are analyzed and the results extrapolated to establish a projected Day 90 value. P. Greiner further explained that in addition to the current protocol, section 4 also provides the option to expose the product for a full 90 days. He proposed to allow a similar option under the other sections of NSF/ANSI 61. The test takes longer but is much simpler. The selection of this protocol would be at the discretion of the manufacturer.

The group discussed the reason for the proposed change. Was this prompted by the labs or manufacturers? It was suggested that it can be a bit complicated to project out to the 90th day. C. Selover asked if this should this be submitted to the Health Advisory Board (HAB) for consideration. He referred to the exposure testing done for section 9, and the concern over early day short-term exposure levels. Depending on the contaminants, should this be reviewed? P. Greiner noted that this option is not new; it has been in the standard since the earliest version. In addition, this option is not available for all contaminants. For many, the short term exposure limit (STEL) is the same as the total allowable concentration (TAC). It was reiterated that this is a targeted analysis. The levels are measured early in the test and then measured at 90 days if necessary. It is only done if the contaminant exceeds or is expected to exceed acceptable levels.

**Vote:** All in favor.

**Motion passed.**

B. Chlorine terminology (DWA-61-2014-2)

**Motion:** R. Sakaji motioned to ballot the proposed language as written. M. Morrison seconded the motion.

**Discussion:** P. Greiner suggested that NSF/ANSI 61 be clarified throughout the document to state that “free available chlorine” is used in the exposure water as opposed to simply “chlorine.” There was no further discussion.

**Vote:** All in favor.

**Motion passed.**

VI SECTION 3 – GENERAL REQUIREMENTS

A. Section 3 exemptions (DWA-61-2014-3)

**1st Motion:** Add nanofiltration under section 3.2 as suggested. M. Morrison motioned; R. Sakaji seconded the motion.

**Vote:** All in favor.
Motion passed.

2nd Motion: Revise section 3.5 as written. T. Spoden motioned; B. Powell seconded the motion.

Vote: All in favor.

Motion passed.

Discussion: K. Foster proposed the addition of nanofiltration under section 3.2 and section 3.3.2 of NSF/ANSI 61. These sections describe specific high flow devices for which component material information and testing may be waived when that component’s generic material type is contained in Table 3.1. Nanofiltration simply refers to a filtration element with the capacity to filter particle sizes between those filtered by ultrafiltration and reverse osmosis elements. K. Foster explained that these types of filters are used for the same types of high flow applications as microfiltration, ultrafiltration, and reverse osmosis elements, all of which are currently exempted from formulation and testing requirements for Table 3.1 materials. M. Morrison asked if the standard defines these types of filters. K. Foster stated that it would be defined by the manufacturer.

K. Foster suggested an addition to the list of exceptions to the restriction of lead-containing materials under Section 3.5. She proposed to include those situations where the standard allows a formulation exemption for component materials in which the generic material type is contained in Table 3.1.

B. Section 3.2 - expected service life (DWA-61-2014-4)

Motion: Ballot proposed language as written. J. Ballanco motioned; P. Greiner seconded.

Discussion: J. Ballanco proposed to remove the requirement of providing the expected service life of a product under the information and formulation requirements under section 3.2. It has no impact on the testing being performed and most laboratories do not ask for this information. P. Greiner stated his support for the proposal and agreed that this type of information is rarely needed. The only time it could be relevant is for replacement components. C. Selover referred to the NSF sustainability standard currently under development (NSF 375), and that it includes a life cycle test. This information would be better suited under that standard.

Vote: All in favor.

Motion passed.

C. Table 3.2 material specific analyses (DWA-61-2014-10)

Motion: Form a task group to review proposed material specific analyses under Table 3.2 before sending to formal ballot. F. DiFolco motioned; P. Greiner seconded.

Discussion: D. Purkiss explained that there are often components that contain materials for which it is not possible to obtain the specific material type as listed under Table 3.1. An example of this would be a subcomponent in a mechanical device that may contain an elastomer material, but for which formulation information is not available. D. Purkiss suggested that in this case, an expanded test battery for those rare section 8 and 9 devices be specified (process media and coatings would be excluded). He proposed the
addition of Table 3.2 to address general material types not covered under Table 3.1, such as metals, plastics, elastomers, adhesives, and lubricants. Another all-inclusive test battery option would be available for those materials that don’t fall under any of the above categories. He noted that this test battery would be quite extensive but very rare.

T. Spoden stated his opinion that this seems very restrictive for the manufacturer. He stated that he would like to see the testing waived for certain exemptions. D. Purkiss noted that there is a similar waiver under Table 3.1, but in this case definitive formulation information is not available to rule out that a contaminant is not present. J. Ballanco added that in the case where a manufacturer won’t tell you the material formulation for a product but advertises “formaldehyde free,” for example, there must be some way to get this information. F. DiFolco expressed concern that specifying a particular test method is restrictive. Based on these concerns, the group agreed to the formation of a small task group to take a closer look at the proposed material specific analyses under Table 3.2 before sending it to formal ballot.

**Vote:** All in favor.

**Motion passed.**

**TG:** D. Purkiss (chair); T. Reski; T. Spoden; D. Frederick; F. DiFolco

D. **Section 3.3 correction– (DWA-61-2014-11)**

**Motion:** Ballot proposed language as written. B. Powell motioned; F. DiFolco seconded.

**Discussion:** D. Purkiss explained that in the recently published 2014 edition of NSF/ANSI 61, the 2.0 square inch restriction was removed for material formulation information for materials in Table 3.1 under section 3.2. However, an additional reference to this 2.0 square inch restriction under section 3.3 was inadvertently left in the standard. He proposed to delete this reference as well. There was no further discussion.

**Vote:** All in favor.

**Motion passed.**

E. **Ballot 61i110r1- Fire sprinklers**

**Discussion:** C. Selover stated that NSF/ANSI 61 has always contemplated that there are multiple sources for potential contamination in plumbing components. For lead, 1/10 of the maximum contaminant level (MCL) is considered. At the end of the water distribution line you have a cumulative effect of lead. C. Selover expressed concern that if using a combined system (i.e., a multipurpose piping system in which the fire sprinkler system is piped as a part of the cold water distribution system), you may have many T connectors that could contain lead. As we are seeing plumbing codes change in many areas for residential fire protection, he cautioned that if you exempt the lead containing brass in a combined system you may have lead exposure. C. Selover asked for feedback from the JC.

J. Ballanco shared samples of two popular residential sprinklers with the JC. He clarified that the T connections are not excluded; these have to be lead-free. Only the sprinkler heads would be exempted. J. Ballanco also noted that there are other components such as flush valves that have more lead than sprinkler heads, but due to their surface area and the way the EPA law is written, they don’t have to comply with NSF/ANSI 61. J. Ballanco stated that he is not proposing to exempt fire sprinklers from NSF/ANSI 61, just the no-lead requirement.
A. Olah asked if there has been any new information provided since the original balloting process. J. Ballanco explained that there is no new information, just simply a clarification that the proposal does not extend to the T connectors. R. Sakaji suggested that based on this discussion, perhaps there needs to be some clarification on exactly what the fire sprinkler includes. There may be some misunderstanding that it is the entire assembly. M. Leslie read the Council of Public Health Consultant (CPHC) member’s ballot comment:

“Many fire sprinkler systems are connected to the drinking water system and is the source of water for the system. As long as this situation exists, there is the potential for the drinking water system to be contaminated from backsiphonage or backpressure resulting in the water from the fire sprinkler system entering the drinking water system.”

D. Heumann stated that there is no back pressure from the fire sprinkler; it’s diffusion. He suggested that it would be easy to simulate this to provide some data. He clarified that he is not asking to reopen ballot issue. J. Ballanco stated that he knew of a project that was to evaluate this, but the research funding was lost.

The JC agreed that it needed to respond to the CPHC member’s comment. Hopefully a simple clarification that the exemption is only for the sprinkler head will resolve the issue. It was reiterated that the proposed ballot is for the sprinkler head to be exempted from the requirements of NSF/ANSI 372 only; it still has to meet the requirements of NSF/ANSI 61. J. Ballanco will draft the response to the CPHC comment.

VII Section 5 – Barrier Materials

Discussion: P. Greiner explained that the scope of section 5 under NSF/ANSI 61 covers the evaluation of concrete, as well as the constituents of concrete, such as cement, admixtures, and aggregate. He stated that the form of samples to be used, however, is not clear when evaluating the aggregate only. He proposed adding exposure and normalization criteria to the standard that would be specific to aggregate. This will eliminate concerns that other components may contribute to contamination. P. Greiner reviewed the proposed exposure protocol, which includes an option for direct measurement of the leachates in the loose media form using a mass-to-volume ratio equivalent to its mass-to-volume ratio when concrete cylinders are used. This is much simpler than exposing the aggregate as concrete cylinders, and is a much more conservative test. P. Greiner asked the JC for feedback on whether the proposal can be sent to ballot as written or if a task group is needed.

The question was raised as to whether any testing had been done to show a comparison between the two methods. P. Greiner stated that there has not been a comparative test, but reiterated that the aggregate test is more conservative and would probably prove to be more difficult to pass. However, it would separate out the contamination which would come from concrete. It was clarified that while Table 5.6 specifically lists tanks and storage, it is not limited to those, and would include a water basin.

J. Ballanco referred to the quality assurance of the sampling. How do you know that you are getting the same aggregate every time? P. Greiner stated that it is a very sensitive test, but acknowledged that if a multi-year structure being built, the manufacturer would be sampling from different areas of the quarry. This test can only provide reasonable assurance for the aggregate from any one vein of a quarry. T. Spoden stated his preference for the formation of a task group for further review before sending to ballot.

Vote: All in favor.

Motion passed.
TG: P. Greiner (chair); T. Spoden; D. Frederick; G. Lai; M. Morrison; B. Bernados.

VIII Section 7 – Process Media

A. Recycled glass (DWA-61-2014-6) & (DWA-61-2014-7)

Motion: Form a task group to develop requirements for analysis of recycled glass media. P. Greiner motioned; T. Spoden seconded.

Discussion: J. Himes, from the Pennsylvania Dept. of Environmental Protection Recycling Center, explained that recycled glass from both post-industrial and post-consumer sources is currently used as a feedstock for a variety of product designs as a replacement for sand and other materials. The typical product is a triple mix of clear, amber, and green recycled glass that comes out of households.

J. Himes stated that many “new” products contain recycled feedstock, such as carpeting, glass bottles and containers, plastic beverage containers, and tires. He stated that adequate and standardized protections need to be adopted for the use of recycled material when feedstock could potentially be a sanitation concern. However, glass purification requirements that specify temperatures in excess of 600 ºC could begin to fuse the typical soda-lime container glass and create aggregated particles. J. Himes described alternative methods of purification that could be used. He referred to ASTM E688 for the removal of organics from glass cullet. He asked the JC to consider the formation of a task group to develop requirements for analyses.

S. Randall explained that recycled materials are currently excluded from NSF/ANSI 61, because typically what is extracted from the source material may vary from day to day. However, after speaking with different manufacturers NSF has determined that certain types of recycled glass can be returned to a virgin state through processing and may be suitable. S. Randall reviewed the proposed language submitted by NSF staff to address the use of recycled glass in process media. There are three minimum requirements that would need to be met: 1) the glass source material must be suitable for food and beverage containers; 2) the processing must remove all non-glass material; and 3) the source material must be sized and heated above 1,000 ºC.

T. Reski raised a concern with regards to the labeling on the original glass materials. The inorganic compounds (e.g., lead, cobalt compounds, etc.) that might be used in the pigments and epoxy of the labels should be considered. What is typically used for blue and green pigments, for example? S. Randall stated that he believed that they are approved for food grade. He added that it would be a good survey to do to determine the types and prevalence of these materials. J. Himes stated that the labeling formulation is well known, but agreed that this should be considered.

R. Sakaji asked if there have been any pilot studies done by the manufacturers. J. Himes reported that an initial limited study was done, but that larger testing would be through certification testing. He noted that one of the uses of recycled glass from consumers today is sand-filtration media (septic). It is a different application but much work has been done in this area. The group discussed this application for large municipal systems, and how these materials would hold up long-term with backwashing, abrasiveness, etc. J. Himes stated that he was not aware of any long-term testing for sand filter replacement.

G. Lai noted that if only clear glass could be used, it would be quite time consuming and labor intensive to separate out the colored glass. He suggested that the American Water Works Association (AWWA) be consulted first on the requirements of the filter media. It
would need to meet requirements for refractive size, composition of sand, uniformity coefficient, etc. Glass may not fit the specification. It was noted that there must be compliance with AWWA B100 for granular filter material to be used in water treatment plants.

**Vote:** All in favor

**Motion passed.**

**TG:** S. Randall (co-chair); J. Himes (co-chair); T. Spoden; A. Dail; J. Weise; D. Heumann; P. Olson (will provide contact from AWWA)

**IX Section 8 – Mechanical Devices**

A. **Hot water exposure protocol (DWA-61-2014-8)**

**Discussion:** P. Greiner proposed to reconvene the existing task group to address hot water exposure protocol options for in-line devices under section 8 of NSF/ANSI 61. He explained that several years ago this task group updated section 4 to differentiate the hot water protocol between intermittently hot and continuously hot applications. For the “intermittent hot” water protocol, the water is held hot only for the initial portion of the exposure protocol, and then allowed to cool down over the duration of the exposure. P. Greiner further explained that the “continuous hot” water protocol is intended for products that are typically installed downstream of a hot water heater.

P. Greiner stated that the task group had begun to update the protocols for devices under section 8 as well, but that the effort was put on hold as other issues such as lead became a higher priority.

F. Lemieux asked for additional volunteers that would be interested in joining the task group to complete this task.

**Additional TG members:** R. Hinshaw; J. John; T. Spoden; M. Schock; F. Lemieux.

M. Leslie will check with the original task group members for their continued participation as well.

B. **Chemical feeders and generators (DWA-61-2014-12)**

**Motion:** Form a task group to consider the criteria and method for evaluating in-line copper silver ion generators. T. Spoden motioned; J. Ballanco seconded the motion.

**Discussion:** D. Purkiss recommended that the scope of NSF/ANSI 61 cover a wider range of chemical feeders and generators under section 8. Currently, the standard contains requirements for chemical feeders and generators that are intended to be used at water treatment facilities that deliver chemicals covered under NSF/ANSI 60. However, the standard does not contain criteria to evaluate in-line copper silver ion generators that are used to control Legionella growth in building water systems.

D. Purkiss proposed specifying the evaluation criteria in terms of the TAC or single product allowable concentration (SPAC) for these products, as well as requirements for the ability of the end user to monitor and control the concentration of chemical parameters that are intentionally added to the water. With regards to copper silver ion generators, D. Purkiss explained that the active levels of copper and silver required to control Legionella growth are above the NSF/ANSI 61 SPACs but below the TACs and the MCLs. The EPA Office of Pesticides has registered specific products that have a
means of enabling the end user to monitor and control the levels of copper and silver in the water to ensure that these do not exceed the EPA MCLs.

The question was raised as to how the MUL ties into this – is normalization based on the maximum use level (MUL)? D. Purkiss clarified that it is still referencing Annex B. The group discussed that fact that the copper silver ion generator is more of an in-line device. Does it appropriately fit under this section for chemical feeders and generators? D. Purkiss explained if it’s an in-line device it would be tested as such and to the maximum dose, as well as with hot and cold water, depending on its intended use.

A few members questioned how this would be tested. Concerns were raised on the use of copper silver ion generators in hospitals. J. Ballanco stated that hospital pipes already contain copper, and if more is being added this needs to be taken into account. D. Purkiss stated that there are use instruction requirements. Monitoring is crucial and he agreed that this needs to be taken into account. M. Schock stated that he was still unsure of the logistics of the proposal and suggested that a task group be formed to look at the best way to go about testing. He stated that he has seen high levels of copper come out of these products in hospitals. He noted that in the state of Ohio, hospitals become part of the public water system and have the same constraints as other public water supplies.

**Vote:** All In favor

**Motion passed.**

**TG:** D. Purkiss (chair); M. Schock; A. Fisher; F. Lemieux; J. Weise; D. Frederick

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**Annex C**

**A. Stainless steel composition (DWA-61-2014-9)**

**Motion:** Ballot proposed language as written. J. Ballanco motioned; D. Heumann seconded.

**Discussion:** P. Greiner stated that there are discrepancies between the stainless steel compositions listed under Table C1 and the ASTM product standards cited in the table. He proposed to revise the stainless steel compositions to truly reflect what they are based on in the ASTM standards. He noted that it is a minor revision. There was no further discussion.

**Vote:** All in Favor

**Motion passed.**

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**XI Informational/Task Group Updates**

**A. TG on Copper Tubing**

**Discussion:** P. Greiner explained that the task group was formed at last year’s DWA JC meeting to address an issue paper on copper. It was suggested that the standard would be improved by defining those conditions where copper pipe will be unlikely to ever cause copper release in excess of the maximum contaminant level goal (MCLG). P. Greiner reported that the task group is currently developing an informational annex to provide guidance on water quality considerations known to be important for specific piping material types. In addition to copper, it will address galvanized steel and will eventually address the other material types.
It was clarified that since this is to be an informational annex, formal balloting is not required. However, P. Greiner stated the task group will forward the annex to the JC for review and comment.

B. Water Age

**Discussion:** P. Greiner reviewed the proposed language drafted to inform the reader of potential issues that arise due to extended water age that can occur in plumbing systems and the limitations what can be addressed through NSF/ANSI 61. He stated that this draft was circulated to those commenting at last year's meeting, and there was general support for adding this to the standard. P. Greiner explained that this language was initially drafted for inclusion in the foreword, but a suggestion has been made to include it as a limitation under section 1 of NSF/ANSI 61.

The question was raised on whether the FDA has taken similar steps for bottled water. It was clarified that bottled water is not covered under NSF/ANSI 61. D. Church stated that including this language under section 1.4 would make it a normative requirement. However, it's not a product requirement, and therefore should not be under section 1.4. K. Frakes read section 1.4 to the group. Several members agreed that it would be more appropriate to include the language addressing water age under the foreword as an informational item.

C. Section 9 Water

**Discussion:** P. Greiner gave an update on the Extraction Water Task Group’s consideration of extending the use of section 9 water when evaluating lead and copper release from brass and bronze devices. This was a recommendation from the Water Research Foundation (WRF) project. He noted that for most sections of the standard, exposure water conditions are currently determined by B.2.5 and Table B3 of NSF/ANSI 61.

P. Greiner reported that the task group received feedback that there should be a five year implementation period, since this is a significant change for the manufacturers. The JC needs to consider the best way to incorporate it into the standard. P. Greiner noted that Annex F was created similarly as a standalone annex. However, this situation is not as simple. In that case, only the pass-fail criteria were changing. In this case, a completely new test water is being proposed. Manufacturers will have to send in new product and retest. Certifiers could provide the option of either test water during the transition if they choose. P. Greiner suggested that the intention to replace the water after five years be noted in the standard. Then the original water would need to be balloted out of the standard at that time.

The group discussed testing a product that has a combination of material (e.g., brass with elastomers). P. Greiner explained that one would still use section 9 water. He added that the labs have experience with lead and copper release from brass and bronze. We look at those material types in which we have experience that indicate that we should look at pH for metal release. The intent is to enable us to get results to show us whether we should do all pH waters or whether section 9 water is sufficient and representative of what we see in the field. G. Dejarlais expressed his hope that certifiers will track this information so that in five years we have this data. For example, perhaps we will find out that we don’t need to be concerned with pH 10 water. He added that over the next five years it may show us that an entire class of inline devices may not be able to pass the section 9 water, and that a reassessment is needed. T. Spoden stated his opinion that this should be tested first before revising the standard. P. Greiner stated that the challenge is how to do accomplish this. Products are very formulation dependent. It is
difficult to obtain this information. P. Greiner stated that we went through the WRF project to get data on brasses. It was a huge undertaking. The group discussed that some manufacturers may opt not to test with the additional section 9 water until they are forced to. There was general agreement, however, that we want to be able to share the test data the certifiers obtain during this transition period.

F. Lemieux gave an update on the additional work being done by the Extraction Water Task Group. The group is considering the use of chloramines versus chlorine. She reported that the group needs additional discussion before making a recommendation to the JC.

D. NSF 375 – Sustainability Assessment for Water Treatment Contact Products

T. Bruursema provided an informational update on the development of NSF 375 - Sustainability Assessment for Water Contact Products. This standard will show that a product, manufacturing practices, and corporate practices are sustainable, and includes criteria across the product life cycle, from manufacturing to end-of-life management. T. Bruursema gave an overview of the methods and criteria for compliance.

XV New Business/Administrative Issues

A. Polyethylene (PEX) Products in Green Buildings

A. Whelton discussed his paper on polyethylene (PEX) pipes in green buildings (uploaded on NSF online workspace). He stated that eight PEX products were tested and a tremendous amount of variability among the products was found, including those chemicals that affect taste and odor. He noted that none exceeded federal health-based limits, but some exceeded state limits. As a result, he has made six recommendations for revising NSF/ANSI 61, including that the scope of the standard cover taste and odor requirements for products.

D. Church provided an overview of the Plastics Pipe and Fittings Association (PPFA). He stated that they have had decades of experience with NSF/ANSI 61 test methods and requirements. D. Church stated that several years ago the PPFA completed an environmental impact report under the state of California and many of the things covered under A. Whelton’s paper have already been covered under this impact report. He added that the release of A. Whelton’s report has already caused an impact on PEX sales. D. Church added that the state of Illinois is getting dozens of requests to exclude PEX from their plumbing codes. He asked that the JC deny any of the proposed revisions.

C. McLellan provided background on PEX certification. He explained that in the 1990’s PEX products were tested to NSF/ANSI 61 and compounds were found. Analysis was done to determine every single resin for pipe. NSF has tested them and done risk assessments for those that have been certified and are deemed safe. They meet the EPA requirements. With regards to the concerns on new pipe, one doesn’t drink new pipe water. NSF/ANSI 61 was designed with the 14-day test period to reproduce a worst-case scenario while being practical. For replacement products, the evaluation on short-term exposure levels versus long-term exposure levels is being done under the standard as well.

Several questions were raised during the discussion. It was noted that it is rare to see toluene. Was there a control used? With regards to ethyl-tert-butyl-ether (EBTE), there is no data for that chemical to suggest that it is a carcinogen. C. McLellan noted that the
pass/fail level for EBTE is 20 mg/L, and this has been reviewed by the Health Advisory Board (HAB).

C. McLellan asked if there were any known formulation information for compounds that might be related to phthalates. He stated that this is not an ingredient used in PEX materials. He stated that he did not believe this study should be used for any recommendations for NSF/ANSI 61.

A. Whelton clarified that they did test the control water, and took samples of water from the street from the copper pipe before entering PEX pipe. Samples were also taken throughout different sections of house.

A. Whelton stated that while leaching is not just PEX or plastic issue, NIH funded this study because this very little data on PEX. These are the findings provided. This paper would reaffirm what was found in California. Nothing else has been done in the last 10 years.

F. Lemieux stated that she has received feedback against the recommendation to address taste and odor. She stated that the JC recognizes that consumers do not like this, but the scope of NSF/ANSI 61 does not include taste and odor. It is a health effects standard only. F. Lemieux reiterated that C. McLellan has already addressed the test conditioning procedure, and it is uncertain whether there is anything else that the JC can do to address that.

The question was raised on whether there is any test data with respect to chloramines. Leaching properties are different with different materials. Is chloramine similar to chlorine? J. Ballanco explained that chloramine resistance testing has been added to some product standards. T. Reski stated that there is a greater concern for elastomers, and what happens upon devulcanization.

F. Lemieux stated that she believes that the recommendation with regards to assimilable organic carbon (AOC) contribution is captured another standard. She offered to put Dr. Whelton in contact with the person that can provide additional information on this. E. Nieminski stated her opinion that it is very expensive and not practical to have AOC measures addressed in the standard.

A. Whelton stated his agreement with C. McLellan regarding new plumbing construction. He expressed concern, however, that consumers purchase products through retail and do not wait before using after installation. P. Greiner explained that the general approach for NSF/ANSI 61 is a balanced risk assessment of a representative sample of exposure of people to products. NSF/ANSI 61 looks at a regular use pattern over the lifetime of a product. The 14 days of non-use is not relevant for the health effects evaluation.

The group discussed the differences between state and federal requirements. F. Lemieux and M. Schock noted that it is difficult to meet individual state standards, as they are entitled to create a more conservative requirement if they wish. They both reiterated that NSF/ANSI 61 is based on EPA and national standards, and peer reviewed by an external group of experts. F. Lemieux acknowledged that it can be problematic when a state has a different value that they have to meet. F. Lemieux offered to send A. Whelton the proposed language on water age.

E. Nieminski stated her agreement with M. Schock’s statements and added that many states (including Utah) have a mandate that they cannot be more stringent than the federal requirement. She reiterated that it is important to distinguish between aesthetics and regulated health effects.
The group discussed that there is a lack of data on chlorine dioxide, as well as chloramines.

D. Heumann described the example of the first lead requirements under NSF/ANSI 61 and California’s Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986). He stated that the California standard was more rigorous than the federal requirement. The state had to bear the cost of this. Over time the new stringent level became part of NSF/ANSI 61, but it required much testing over long period of time for acceptance.

B. 2015 Meeting Dates

M. Leslie proposed the next annual meeting date of Thursday, December 3rd, 2015. There were no objections. F. Lemieux motioned to adjourn the meeting; K. Frakes seconded. The meeting was adjourned.
Meeting Participants

Joint Committee Members
Chairperson, France Lemieux (Health Canada)
Julius Ballanco (J.B. Engineering)
Brian Bernados (California Dept. of Public Health) - via phone
Nate Buzard (Viega LLC)
Richard Carrier (Health Canada)
Dean Denny (Lavelle Industries)
Franco DiFolco (CSA)
Kyle Frakes (Tnemec)
Jeff Franks (Technical Engineering Solutions, LLC)- via phone
Douglas Frederick (Underwriters Laboratories, Inc.)
Pete Greiner (NSF International)
David Heumann (LA Dept. of Water and Power)
Jeff Kempic (USEPA, Office of Groundwater and Drinking Water) – via phone
Jacob John (Uponor)
George Lai (Ontario Ministry of the Environment)
Richard Lorenz (City of Westerville)

Joint Committee Members not in attendance
Mike Briggs (IAPMO)
Kevin Chew (Truesdail Laboratories)
Oleh Dzydzora (United Water Suez)
Sadath Khan (Saudi Arabian Amiantit Co.)
Andrew Kireta (Copper Development Assn.)
Irving Moch Jr., (I. Moch & Associates, Inc.)
Robert Odette (Navy and Marine Corps Public Health Center)
Edward Ohanian (USEPA Health & Ecological Criteria Division)
Wendy Sheeran (Ohio EPA)

Observers
Mark Anderson (Ford Meter Box)
Jeff Baldwin (T & S Brass)
Dan Barbin (Watts Water Technologies)
Siying Chen (Masco)
Richard Church (Plastic Pipe and Fittings Assn.)
Mark Clark (NIBCO, Inc.)
Don Connolly (AY McDonald)
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Ralph Franco (Calgon Carbon)
Leo Fleury (Mueller Co.)
Bryan Hauger (Bryan Hauger Consulting, Inc.)
John Helmeset (New York Dept. Of Health)
Jack Himes (Pennsylvania RMC)
Robert Hinshaw (Neptune TG)
Mary Kimlinger (Uponor)
Larry Muller (Chase Brass)
David Nickelson (REHAU, Inc.)
Sally Remedios (Remedios Consulting) – via phone
Michael Schmeida (Oatey)
Michael Schock (USEPA)
Jeff Scilingo (Watts)
Derek Scott (American Cast Iron Pipe Co.)
Linda Soares (TACO, Inc.)
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