



4/29/2009

Mr. Richard Church  
Executive Director  
Plastic Pipe and Fittings Association  
Building C, Suite 312  
800 Roosevelt Road  
Glen Ellyn, IL 60137

Re: California PEX EIR

Dear Mr. Church,

The purpose of this letter is to respond to the letter written on January 21, 2009 by James J.J. Clark on the subject of his Review of Final Environmental Impact Report (FEIR) for the Use of PEX Plastic Piping. This response is intended to correct errors, improve understandings of NSF/ANSI Standard 61 standard setting process and to clarify toxicology principals.

Multiple statements were made regarding the toxicity of methyl-t-butyl ether and t-butanol. It is important to understand that all chemicals exhibit toxicity at some level, but it is not meaningful to stress the hazard of a chemical without considering the leaching level. The documents that have been provided by NSF International to the California Department of General Services during the Environmental Impact Report process clearly show that the level of leaching of methyl-t-butyl ether and t-butanol from PEX materials resulted in concentrations that were below levels of health concern for short term and long term exposure.

Multiple times in the review document, the acceptable levels set by NSF International were compared to the acceptable California levels. While it may be informative to note the differences in these levels it is more important to compare the leaching levels of methyl-t-butyl ether and t-butanol from PEX to acceptable levels. This comparison was completed and communicated in multiple documents which are included in the Environmental Impact Report for PEX Piping. These multiple leaching studies have shown that the leaching of methyl-t-butyl ether and t-butanol from PEX occurs in some PEX pipe at very low concentrations, the concentrations decay rapidly and are expected to be below California acceptable levels when PEX pipe is used to convey potable water.

It is true that NSF International did not set a Short Term Exposure Level (STEL) for methyl-t-butyl ether. When a STEL is not set for a chemical, leaching levels must be below the Total Allowable Level (which is lower than the STEL) at all time points. This data was reported by NSF International in a number of studies in documents submitted to the California Department of General Services during the Environmental Impact Report process. Leaching levels were below the Total Allowable Levels thus making it irrelevant that a STEL was not set.



It is not correct that "The NSF standard does not take into account exposure to a large portion of the public, including sensitive receptors such as infants and children." Sensitive subpopulations such as infants and children are considered in all aspects of a toxicological review. There were no data in a fairly extensive database which indicated that infants or children are a sensitive subpopulation if exposed to methyl-t-butyl ether. It would not be appropriate to apply a factor for infants or children when there is high degree of confidence that infants or children are not uniquely susceptible and insufficient data to show otherwise.

It was expressed that there is an increased concern for the synergistic effect of methyl-t-butyl ether and t-butanol exposure based on their combined metabolism. No data was presented by the proponents of this theory nor is there any available information which would support this concern based on the low level of leaching of methyl-t-butyl ether and t-butanol from PEX pipe.

If you have any further questions, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Clifton J. McLellan".

Clifton J. McLellan  
Director of Toxicology  
NSF International

Phone: 734-769-8010  
e-mail: [Mclellan@nsf.org](mailto:Mclellan@nsf.org)

Cc: Kelley M. Taber, Somach, Simmons & Dunn