Written Testimony of
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Testimony in Support of House Bill 6332 submitted to the
Connecticut General Assembly Committee on Children
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House Bill 6332, AN ACT CONCERNING TOXIC FIRE RETARDANTS IN CHILDREN'S PRODUCTS

Dear Senator Bartolomeo, Representative Urban and honorable members of the Committee on Children,

I thank you for allowing me to submit testimony. Following is a brief description of my past work as it relates to my support of House Bill 6332.

My name is Andrew McGuire and I am a burn survivor. I was burned at age seven when my bathrobe and pajamas ignited while standing next to an open flame. I was hospitalized for a total of three months and underwent four skin grafting operations.

Twenty-two years after I was burned, I joined the first organization in the U.S. formed by parents of burn injured children to lobby for flame resistant pajamas. Within a few months, I became the first Executive Director of Action Against Burns (based at the Shriners Burns Institute in Boston, 1973-1975). I successfully lobbied for a flame resistant sleepwear standard (sizes 7-14) for Massachusetts and, as a burn survivor, established one of the first in the nation self-help groups for burn survivors. My wife and I returned to the San Francisco Bay Area and, in 1978, as Executive Director of the Trauma Foundation, based at San Francisco General Hospital, I began a national campaign for fire-safe cigarettes (cigarettes which will not cause ignition if dropped on bedding or furniture), which has led to mandatory fire-safety standards for cigarettes in all 50 states, Canada, Australia, South Africa, Russia, the 27 countries of the European Union and other countries.

Past positions include: Member of the National Advisory Committee for the Flammable Fabrics Act, U.S. Consumer Product Safety Commission, (Washington, DC, 1979-1981), Member of the Editorial Board of the Journal of Burn Care & Rehabilitation, (Dallas, TX, 1980-1986), and Member & Chair of the Board of Directors of the Phoenix Society for Burn Survivors, (Grand Rapids, MI, 1998-2005).

It should be noted that, in 1976, when a form of Tris used as a flame retardant in children's pajamas was shown to be a mutagen and, after research conducted in the following years, a carcinogen and generally toxic chemical, I publically supported the removal of Tris from children's pajamas. My view then, and now, is that there are non-toxic methods for providing fire safety without exposing children and adults to toxic flame retardant chemicals.

Thus, I would like to make the following two points supporting the passage of HB 6332:

1) There are numerous negative health impacts from exposure to the "family" of three Tris chemicals described in HB 6332.

In 2011, after a scientific review of TDCPP's health effects, the State of California listed TDCPP as a carcinogen under Proposition 65. TDCPP shows a similar neurotoxicity to the organophosphate pesticide, chlorpyrifos, a known developmental neurotoxicant.
A recent study showed that men living in homes with high amounts of the organophosphate flame retardants TPP and TDCPP in house-hold dust had reduced sperm counts and altered levels of hormones related to fertility and thyroid function. High levels of TPP in dust were associated with a substantial reduction of sperm concentrations and an increase in prolactin levels. Increased prolactin is considered a marker of decreased neuroendocrine/dopamine activity and also may be associated with erectile dysfunction. High levels of TDCPP in dust were associated with a 17 % increase in prolactin and a 3 % decline in free thyroid hormone levels. The possible synergistic or additive effects of the numerous flame retardant chemicals in use have not been studied in animals or humans."

2) The California flammability standard, Technical Bulletin (TB) 117, is not an effective fire safety standard. And, the presence of any of the Tris chemicals in children's products does not provide a measureable fire safety benefit.

In the first peer reviewed paper that evaluated the fire safety benefits of TB 117, fire scientist Vytenis Babrauskas, PhD concluded:

"...the evaluation of the fire safety benefits of TB117 foams is simple—there are no benefits—...."
The reason that TB 117 provides "no benefits" as a fire safety standard is embedded in the testing method. The test procedure requires that a small flame is placed at the bottom edge of a sample of foam for 12 seconds. If the foam continues to burn after the small flame is removed, the foam fails the test. In order for foam to pass the test, significant quantities of flame retardant chemicals must be added to the foam.

However, the problem with the test is that in the "real world," foam is covered with a fabric or other material. And, when the fabric or other material first ignites from a flame, and before the foam is exposed to a flame, the burning fabric or material produces more heat than a small flame. The net result is that the burning fabric or material overwhelms the flame retardant and ignites the foam. Once the foam is ignited, the flame retardant chemicals add to the fire problem by producing extremely toxic gases, such as dioxins and furans, and copious amounts of toxic smoke.

In summary, the three Tris chemicals described in HB 6332 are extremely toxic and a health threat to children who are exposed to them. Additionally, the Tris chemicals, when added to foam in children's products—as well as furniture foam—do not provide fire safety because the fire safety test does not replicate the "real world." Therefore, I urge your support of HB 6332.

Thank you for considering my submitted testimony.

Sincerely,

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EPA, Furniture Flame Retardancy Partnership: Environmental Profiles of Chemical Flame-Retardant Alternatives for Low-Density Polyurethane Foam (EPA 742-R-05-002A,September, 2005), pp. 4-2 to 5.

Flame Retardants in Furniture Foam: Benefits and Risks, Fire Safety Science 10 (2011)
Vytenis Babrauskas a, Arlene Blum b, Rebecca Daley c, and Linda Birnbaum d
a Fire Science and Technology Inc. 9000-300th Place SE, Issaquah, WA 98027 USA
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Ibid.