ALASKA STATE LEGISLATURE
HOUSE LABOR AND COMMERCE STANDING COMMITTEE
March 14, 2011
3:19 p.m.

MEMBERS PRESENT

Representative Kurt Olson, Chair
Representative Craig Johnson, Vice Chair
Representative Mike Chenault
Representative Dan Saddler
Representative Steve Thompson
Representative Lindsey Holmes
Representative Bob Miller

MEMBERS ABSENT

All members present

COMMITTEE CALENDAR

HOUSE BILL NO. 63
"An Act relating to flame retardants and to the manufacture, sale, and distribution of products containing flame retardants; relating to bioaccumulative toxic chemicals; and providing for an effective date."

- HEARD AND HELD

HOUSE BILL NO. 118
"An Act relating to a tax credit for corporate income taxes paid for qualified research and development expenditures; and providing for an effective date."

- BILL HEARING CANCELED

HOUSE BILL NO. 155
"An Act relating to public construction contracts."

- SCHEDULED BUT NOT HEARD

HOUSE BILL NO. 122
"An Act relating to naturopaths and to the practice of naturopathy; establishing an Alaska Naturopathic Medical Board; authorizing medical assistance program coverage of naturopathic services; amending the definition of 'practice of medicine'; and providing for an effective date."

- SCHEDULED BUT NOT HEARD

PREVIOUS COMMITTEE ACTION

BILL: HB 63
SHORT TITLE: FLAME RETARDANTS AND TOXIC CHEMICALS
SPONSOR(s): REPRESENTATIVE(s) HOLMES

01/18/11	(H)	PREFILE RELEASED 1/7/11
01/18/11	(H)	READ THE FIRST TIME - REFERRALS
01/18/11	(H)	L&C, FIN
03/14/11	(H)	L&C AT 3:15 PM BARNES 124

WITNESS REGISTER

MIKE COUMBE, Staff
Representative Lindsey Holmes
Alaska State Legislature
Juneau, Alaska
POSITION STATEMENT: Presented HB 63 on behalf of the prime sponsor, Representative Lindsey Holmes.

LAUREN HEINE, Environmental Chemist; Co-Chair
Wal-Mart Sustainable Value Network for Chemical Intensive Products
Sacramento, California
POSITION STATEMENT: Testified during the discussion of HB 63.

PETER BRIGHAM, MSW
Emeritus Member; Federation of Burn Foundations (FBF)
Bala CynWyd, Pennsylvania
POSITION STATEMENT: Testified in support of HB 63

ARLENE BLOOM, Scholar
University of California, Berkley; Executive Director
Green Science Policy Institute
Berkeley, California
POSITION STATEMENT: Testified during the discussion of HB 63.

DAVID HEIMBACH, Director
University of Washington (UW), Burn Center
Seattle, Washington
POSITION STATEMENT: Testified during discussion of HB 63.

GORDON NELSON, Ph.D., Vice-President
Academic Affairs

Florida Institute of Technology
Melbourne, Florida

POSITION STATEMENT: Testified during the discussion of HB 125.

ACTION NARRATIVE

3:19:37 PM

CHAIR KURT OLSON called the House Labor and Commerce Standing Committee meeting to order at 3:19 p.m. Representatives Olson, Johnson, Saddler, Miller, Thompson, and Holmes were present at the call to order. Representative Chenault arrived as the meeting was in progress.

HB 63-FLAME RETARDANTS AND TOXIC CHEMICALS

3:19:56 PM

CHAIR OLSON announced that the first order of business would be HOUSE BILL NO. 63, "An Act relating to flame retardants and to the manufacture, sale, and distribution of products containing flame retardants; relating to bioaccumulative toxic chemicals; and providing for an effective date."

3:20:13 PM

REPRESENTATIVE JOHNSON moved to adopt the proposed committee substitute (CS) for HB 63, labeled, 27-LS0324\M, Bannister, 2/9/11, as the working document.

CHAIR OLSON objected for purpose of discussion.

3:20:38 PM

MIKE COUMBE, Staff, Representative Lindsey Holmes, Alaska State Legislature, on behalf of the prime sponsor, Representative Lindsey Holmes, presented HB 63. He explained that this bill would ban the use of three toxic chemicals found in mattresses, mattress pads, upholstered furniture, and the plastic covers on electronics. This bill would reduce people's exposure to dangerous chemicals in our homes and help limit the residues from persisting in cold climates such as Alaska. The chemicals, known as polybrominated diphenyl ethers (PBDEs), are added to foam and plastic casings to reduce flammability. These chemicals are easily released from these products as microscopic dust, which can be ingested, inhaled and absorbed. They remain

in the environment for extended periods of time and build up in fatty tissues, concentrating as the chemicals move up the food chain. Children are most at risk since chemicals are transferred from mother to child during pregnancy and nursing. Exposure to PBDEs can have permanent effects on children. The PBDEs are associated with thyroid disruption, neural developmental impairment, and other adverse effects in children leading to potential brain malfunctions and possible mental retardation. Despite the fact that the use of these chemicals is to reduce fires, firefighters are also at high risk as the PBDEs release dense fumes and black smoke that reduces visibility and a highly corrosive gas known as hydrogen bromide.

MR. COUMBE related that the federal government has not been able to prohibit PBDEs since the 1976 Toxic Substances Control Act has proven inadequate in protecting the public and the Congress has failed to reform the law. Bans of PBDEs have been passed in 12 states including, Washington, Oregon, Michigan, and Maine have prohibited. Fire safety would not be compromised with this ban since safer alternatives exist and are in widespread use today. Companies such as Dell, Hewlett Packard, IKEA, and Apple, Inc. use safer alternatives and a Washington state study finds products not containing PBDEs are readily available. Additionally, the European Union, Wal-Mart and Sam's Club have also banned the products. This bill does not target retailers, but manufacturers must inform retailers of the prohibition.

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MR. COUMBE provided a section-by-section analysis of HB 63. He pointed out that Section 1 of the bill would prohibit the manufacture, sale, and distribution of products that contain more than one tenth of a percent of pentaBDE, octaBDE, or any combination of the two. It would also prohibit use of decaBDE in textile components of mattress pads, mattresses, upholstered furniture or plastic housing of electronic products. It would allow the Department of Environmental Conservation (DEC) to prohibit other flame retardant products if they are found harmful to the public health or environment and an alternative exists that is available nationwide so long as the fire marshal determines the alternative satisfies fire safety standards. This section provides exemptions for products in transportation vehicles, industrial, products in industrial, mining, and manufacturing. Additionally, it exempts products contained in electronic wiring or power transmission cables, and products sold prior to the effective date.

3:26:40 PM

MR. COUMBE related that the department must assist retailers in identifying products that violate the law. It allows the department to request that the manufacturers of a product it suspects of being sold in violation to request the manufacturers to certify the product as legal or notify retailers about the existence of products containing banned PBDEs. It would establish penalties of $1,000 per violation. It also requires the Department of Environmental Conservation and Department of Health and Social Services to review flame retardants and their possible alternatives.

3:27:27 PM

The committee took an at-ease from 3:27 to 3:32 p.m.

3:32:51 PM

MR. COUMBE related that proposed Section 1 also allows the state to work with a regional multi-state clearinghouse to help the department carry out its duties with respect to PBDEs and to help coordinate educational and outreach activities related to PBDEs.

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MR. COUMBE stated that proposed Sections 2 and 3 would authorize the department to begin adopting regulations and develop a list by February 1, 2014 of persistent bioaccumulative toxic chemicals used in products.

3:33:36 PM

MR. COUMBE explained that proposed Sections 4 and 6 would establish effective date for the bill. He referred to the proposed fiscal note which identifies three new employees: a toxicologist to track chemicals, a research analyst, and a publications specialist to manage the outreach process.

REPRESENTATIVE HOLMES commented that although the proposed committee substitute should not affect the FN, she is considering some additional changes to the bill. In response to Representative Chenault, she indicted the fiscal note would likely be reduced.

CHAIR OLSON lifted his objection. Version M was before the committee.

3:37:22 PM

LAUREN HEINE, Environmental Chemist, Co-Chair, Wal-Mart Sustainable Value Network for Chemical Intensive Products, stated she also serves on the California Green Ribbon Science panel. She stated that alternatives to PBDEs are chemicals that work which means that they have the same fire retardant properties to the PBDEs which are currently being considered for ban. She reiterated that a viable alternative does not mean fire safety should be waived but means the substitute provides the same performance and cost without the negative health effect. These chemicals have been banned by a number of states and the U.S. manufacturers of PBDEs have agreed to stop making them. As of 2004, pentaBDE and octaBDE are no longer manufacturers in the state. In response to Chair Olson she agreed they are still imported.

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REPRESENTATIVE SADDLER asked for clarification on the terms.

MS. HEINE explained that three main types of PBDEs, which are a family of chemicals with a common structure of a brominated diphenyl ether molecule which may have anywhere from one to ten bromine atoms attached, are pentaBDE, octaBDE, and decaBDE, which contain five, eight, and 10 bromine atoms, respectively.

REPRESENTATIVE SADDLER asked for clarification on toxicity.

MS. HEINE related that pentaBDE and octaBDE are considered more persistent, whereas decaBDE breaks down from sunlight into nonaBDE and octaBDE. She works in the area of green chemistry, which embraces the idea that risk is the function of hazard and exposure. Typically, exposure is controlled but exposure control is expensive since it requires protective equipment, and hazardous waste disposal plus exposure control can fail. Green chemists propose that a better strategy is to use less hazardous chemicals initially. Thus, green chemists focus on the hazard side of the equation instead of focusing on controlling the exposure side.

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MS. HEINE reported that the U.S. Environmental Protection Administration's (EPA) Design for the Environment has had a number of partnership programs that use the best science and are highly inclusive of industry and evaluated 12 alternatives to pentaBDE, which is used in foam. The EPA is currently evaluating approximately 27 alternatives to decaBDE. She referred members to a list. She explained that the only way the chemical can be considered is when it is found to be economically and performance feasible. She pointed out that these chemicals have been brought forward by the chemical manufacturers.

3:42:15 PM

REPRESENTATIVE CHENAULT asked for clarification on economic equivalent. He asked for clarification on the latitude used for chemical cost comparisons. He agreed that everyone wants to be green but recycled paper costs more than regular paper. He understood the safety concerns but he also expressed his concern for the additional cost of the green chemicals.

MS. HEINE restated that the alternatives were brought forward by the manufacturers as viable within a cost range. She did not consider herself to be an expert on chemical costs but agreed that prices vary between customers depending on the size of the company, the amount of the chemical, and tend to drop over time as the product use increases. She suggested that the chemicals currently being evaluated were brought forth by flame retardant and product manufacturers who selected these products since they are viable from a cost and performance standard.

3:44:23 PM

CHAIR OLSON asked for clarification on importing PBDEs.

MS. HEINE stated that the EPA and U.S. manufacturers reached an agreement not to manufacturer PBDEs any longer. She offered her belief that different mechanisms apply to prevent importation of products manufactured elsewhere. She said that passage of the bill which would affect products imported that contain the PBDEs.

3:45:33 PM

REPRESENTATIVE JOHNSON referred to the EPA documentation in members' packets which states that the EPA intends to support and encourage the voluntary phase out of manufacturers by 2010

and all sales would cease 2013. He asked for the reason for the bill's necessity if it will already be banned by the federal government.

MS. HEINE asked for his reference.

REPRESENTATIVE JOHNSON detailed the EPA publication dated 2/21/11 EPA document Existing Chemical Action Plan Summary.

MS. HEINE related that the EPA has some complex regulatory tools, including ones used for significant new uses for chemicals. She related her understanding that the EPA intend to support and encourage the voluntary phase out of manufacturer and import of decaBDE.

REPRESENTATIVE JOHNSON referred to the reference to cease all sales by 2013.

MS. HEINE offered her belief that this refers to the principal manufacturers and importers of decaBDE to initiate voluntary reductions in the manufacturer and import. She clarified that this does not refer to decaBDEs manufactured elsewhere.

REPRESENTATIVE HOLMES clarified that the language refers to manufacturers agreeing to stop importing the chemical itself, not necessarily importing products that contain the chemical. She explained that currently although chemical manufacturers have stopped manufacturing products in this country but they can still import products that contain chemicals.

3:49:57 PM

REPRESENTATIVE JOHNSON recalled China sold toys to Wal-Mart containing lead. He asked who would be held responsible, China or Wal-Mart.

REPRESENTATIVE HOLMES offered her belief that it would not be the individual retailers fault.

REPRESENTATIVE JOHNSON asked how to prevent unscrupulous manufacturers.

REPRESENTATIVE HOLMES asked to consider this further.

REPRESENTATIVE JOHNSON offered his belief that chemicals outlawed in U.S. will ultimately be shipped in by other countries.

3:51:18 PM

MS. HEINE pointed out that Wal-Mart has banned PBDEs and will be conducting testing. She thought this would be a big help since Wal-Mart, which is financially bigger than most countries will require people to know what is in their products. She thought this is one of the most powerful impacts of this bill since people will have better information. Typically, people are unaware of the toxicity. This bill will help product manufacturers having more information of what they are making and selling.

3:52:26 PM

REPRESENTATIVE SADDLER recalled her qualifications but asked for further clarification on her relationship with the organizations.

MS. HEINE related she hold a doctorate in environmental engineering chemistry. She said she provides consulting work for nonprofit groups. She works with an organization, Clean Production Action. She works with EPA's Design for the Environmental and has facilitated projects for them. California has a Green Chemistry initiative and she was nominated to the Green Ribbon Science Panel, a national group of scientists. She has been asked to chair the Wal-Mart Chemical Intensive Products (CIP) Tool Development Committee. She explained that Wal-Mart has networks for a number of product classes and groups chemical intensive products together. She further explained Wal-Mart has developed a tool with a company called The Works that allows them to have better visibility into the products Wal-Mart sells. Wal-Mart is attempting to sell products that contain safer chemicals.

REPRESENTATIVE SADDLER reiterated her involvement with Wal-Mart as Co-Chair of its Wal-Mart Chemical Intensive Products (CIP) tool development committee.

3:54:10 PM

MS. HEINE mentioned that not all alternatives need to be chemicals. A number of mattress manufacturers use inherently flame retardant fabrics as a barrier. She stated that an industry association, the Phosphorus Inorganic Nitrogen Flame Retardant Association (PINFA), manufacturers no halogenated flame retardants. This includes huge corporations focused on

non-halogenated flame retardants. In further response, she indicated that means these flame retardants do not contain any chlorine or bromine.

REPRESENTATIVE SADDLER related his understanding that the products would fall under "good" products.

REPRESENTATIVE JOHNSON related that the products are "good" today.

MS. HEINE pointed out that it is good to engage and evaluate alternatives since generally not all of one class is good or bad. She has co-developed a method for comparing chemical alternatives based on hazard that grows out of EPA's Design for the Environment Program. This provides a comprehensive evaluation that allows for fair comparison. She previously compared flame retardant televisions, including one halogenated, and two halogenated and found difference between them. She thought the goal was to be fair and evaluate alternatives.

MS. HEINE stated that electronic manufacturers have found safer alternatives, including Sony, Hewlett Packard, Apple, Inc. Sony Ericcson. She acknowledged a number of health issues exist. As people learn about the chemicals, they are realizing the importance of also considering the life cycle, not just whether it is safe to use right now, but whether it is safe to make and use and dispose of since the end of life of the product may cause problems. She recapped that the movement toward green product is a new and growing market plus a better understanding of impacts that happen along the supply chain.

3:58:26 PM

REPRESENTATIVE JOHNSON asked whether she was speaking for Wal-Mart.

MS. HEINE answered that she is not paid by Wal-Mart.

REPRESENTATIVE JOHNSON responded that Wal-Mart requires all consumer products to comply with applicable federal, state, and industry fire regulations. He indicated that California and Hawaii have established restrictions. He pointed out that Wal-Mart is doing so to meet state and federal regulators.

MS. HEINE responded that Wal-Mart wants PBDEs out of products sold in the U.S. including infant/toddler, camera, toys pet toys, skin care products, sporting goods.

REPRESENTATIVE JOHNSON disagreed. He suggested that it meant attention to those products, but all products must comply with applicable federal, state, and industry fire safety. He summarized that Wal-Mart will comply with existing law.

MS. HEINE added that Wal-Mart is so big it cannot piece meal this so it is banning pentaBDE, octaBDE, and decaBDEs and they will test products for quality control.

4:00:34 PM

REPRESENTATIVE MILLER assumed her expertise is in chemistry. HE asked how the PBDEs become toxic chemicals once they are applied.

MS. HEINE responded that flame retardants are sometimes additives and are mixed in with polymers or can be coated on a surface. Other times they are considered reactive, which she said were less mobile PBDEs. She pointed out the "new car" smell as the smell of the chemicals leaching into the air. It vaporizes when it gets hot. The chemicals can migrate depending on the environmental pressures.

REPRESENTATIVE MILLER referred to the stability, that some chemicals are more stable, others become less stable over the life of the chemicals or when heated. He asked whether the alternatives are stable.

MS. HEINE said that some of the alternatives are inorganic and some are polymers, which consist of larger molecules that are less mobile. The way the EPAs Design for the Environment (DfE) reviews the chemicals is by considering whether the chemical is persistent, biocumulating, and toxic. Persistent means it lasts a long time. Bioaccumulation refers to the accumulation of substances, such as pesticides, or other organic chemicals in an organism. The chemical can accumulate, such as if the chemical is in a fish and humans eat the fish the chemical can become more concentrated. The persistence and biocumulating effects are problematic when they are found to be toxic due to the length of the exposure.

4:03:15 PM

REPRESENTATIVE SADDLER asked for the scope and prevalence of the PBDEs in furniture in Alaska, such as mattress covers and electronic covers.

MS. HEINE explained that prior to phase out of pentaBDE and octaBDE were frequently used in the U.S. The chemicals are found in breast milk and body fluids. It takes considerable time for the products to move through the economy. So unless a person is sleeping in a brand new bed, the odds are the older products contain the chemicals. She pointed out there will be a lag time in terms of the product distribution and as people become aware of the PBDEs and dispose of the product. In response to Representative Saddler, she said she was uncertain of PBDEs levels in Alaska but explained the PBDEs are contained in textiles, in electronics, wiring cable, construction materials, automotive, aviation, shipping pallets, and water borne emulsions and coatings. She provided the committee a list of alternatives from the EPAs DfE. She said she could not provide the volume of contaminated products in Alaska only the general products that contain PBDEs.

4:06:14 PM

REPRESENTATIVE THOMPSON referred to public comments in members' packets noting significant opposition from organizations that oppose the preemptive state ban of these chemicals. The organizations find the EPA time frame is more appropriate. He stated that these organizations expressed concern for the public. Many of them treat burn patients and are concerned about burns from products that are not treated with flame retardants. He asked for further clarification.

MS. HEINE said she understood the concern. She responded that viable alternatives meet fire safety requirements.

REPRESENTATIVE THOMPSON referred to the EPA completion date timeline of 2013 and asked for the reason to jump out ahead.

MS. HEINE answered that a number of other states have already taken similar action as has Wal-Mart. She highlighted that these chemicals are banned in Europe, not necessarily decaBDEs, but the pentaBDE and octaBDEs are banned. She suggested the committee could review each one separately if it felt that delays for some were warranted.

4:08:18 PM

REPRESENTATIVE CHENAULT related his understanding that most of these chemicals were regarded as safe at some point in history. He related that these new green chemicals are coming on line.

He acknowledged that the U.S. probably needs to regulate chemicals but expressed concern that setting the standards too high might put chemical companies out of business. He inquired as to whether the green replacement chemicals have had adequate testing and if the alternatives may be found hazardous at some point in the future. He further asked about the PBDEs in breast milk. He commented she is a researcher and asked for the evaluation timeframe of the green chemicals.

MS. HEINE responded that he has touched on a critical idea. She referred to the pentaBDE, octaBDE, and decaBDE PBDEs which are under consideration in the bill. She stated that pentaBDE and octaBDE are pretty much "out of the picture" since action was taken in 2004 to ban the chemicals. Currently, decaBDE is being phased out. The list of alternatives is currently being evaluated for health and safety. She indicated that the question on whether the alternatives are safe is one that the EPA DfE is addressing. The EPA does want to ensure the chemicals are safer. She attested to the safety aspects for a number of the alternative chemicals. She was uncertain of the safety for some chemicals and acknowledged that some will be deemed unsafe. She anticipated that the EPA's DfE process would be completed in about six months.

4:11:45 PM

REPRESENTATIVE CHENAULT pointed out that it has taken 40 years to determine decaBDE is harmful. He expressed concern that the new chemicals "green or not" may have the same adverse effects on humans but it may take 40 years for the toxicity to surface.

CHAIR OLSON asked whether any reduction in environmental levels of PBDEs has been found since seven years has lapsed since they were banned in 2004.

MS. HEINE answered she was unsure. She offered to check her sources

CHAIR OLSON offered that subsequent testifiers may also have information on this.

MS. HEINE reported that the U.S. has had some of the highest levels in the world. She recalled that effects may be available from data collected in the Scandinavian countries that have banned PBDEs. She reiterated that the purpose of the EPA's DfE is to evaluate the safety across a set of comprehensive attributes. She related that in the past people did not know

the PBDEs were being put into products and were not asking questions about persistence and toxicity. Additionally, testing was not required. She offered her belief that growth in knowledge, experience, and pressure to use safer products has changed the dynamic. Further, if the population density and massive use of these chemicals had not happened the problem may not have arisen, she said.

4:14:12 PM

REPRESENTATIVE JOHNSON referred to the sponsor statement which states use of PBDEs could cause health issues and lifelong health risks. He asked for clarification on what health problems the PBDEs cause. He further asked for the effect of overexposure to these chemicals.

MS. HEINE deferred to experts for specific health impacts but related her understanding that most of the health impacts are chronic ailments. She reported some findings she recalled including that the chemicals affect the proper development of the endocrine and nervous system. She characterized the problems as more developmental problems.

4:15:45 PM

PETER BRIGHAM, MSW, Emeritus Member; Federation of Burn Foundations (FBF), stated that he is an emeritus board member of the Federation of Burn Foundations. He is a former committee chair and member of the Board of Trustees for the American Burn Association (ABA). He discussed the issues in HB 63 as it relates to the burn injury community. He offered his belief that anyone who works with burn care providers and survivors as he has for the past 35 years would be inclined to support any action that would save lives or prevent injuries. He indicated he first became aware of the hazards caused by the accumulating presence of toxic flame retardant chemicals along with a lack of any data on their effectiveness. He offered that many within the ABA share such concerns and the association has not endorsed the specific stance of the industry. He pointed out that the industry stance is represented by Citizens for Fire Safety (CFS), which is the industry's public relations arm. Contrary to the inference on the CFS's website, there is no cooperative study underway by the two organizations. The industry does depend heavily on individual spokespersons from the burn community in the face of the general concerns in the health and science professions. He has tracked the fire and burn injury statistics as the ABA member entrusted with updating the ABA's

annual burn incidence fact sheet. In tracking the steady decline in fire and burn death or injuries for the past 30 years, he has noted many reasons for the trends. All of the changes should be taken into account when considering alternative routes to fire safety and in weighing the hazards of PBDEs and other chemicals.

4:18:56 PM

MR. BRIGHAM responded to an earlier question. He explained that some specific tests of safety and under review in terms of validity of how fires are ignited. These include numerous safety efforts, such as smoke alarms, more public education, stronger building codes, and safer designs of cigarettes, cigarette lighters, and candles. Unlike PBDEs, none of these influences on fire casualties have negative side effects of PBDEs. Other changes may have had a far greater positive impact than any that can be claimed for these chemicals which include a major decline in smoking, the transition in home cooking from the stove to the microwave and the U.S.'s growing reliance on restaurants and fast food outlets. Given all these other reasons for the decline on in fire and burn casualties the balance of the concern needs to shift toward increased scrutiny and action related to the accelerating presence of toxic flame retardant chemicals. He urged members to support HB 63.

4:20:27 PM

REPRESENTATIVE JOHNSON asked whether he represented the American Burn Association (ABA).

MR. BRIGHAM answered that the ABA does not have a specific position on polybrominated fire retardants in consumer products since the organization has a widely diverse opinion within the association as to the dangers.

REPRESENTATIVE JOHNSON referred to another letter in members' packets from David M. Heimbach, MD, FACS, who is Past President of the ABA and Past President of the International Society for Burn Injury (ISBI) who opposes this bill and purports to let the EPA phase out the retardant.

MR. BRIGHAM agreed that the views are diverse among the ABA. He acknowledged that Dr. Heimbach is a distinguished member of the organizations.

4:21:42 PM

ARLENE BLOOM, Scholar, University of California, Berkeley; Executive Director, Green Science Policy Institute, related that she studies organic chemicals. Carbon bromine chlorine represents the kinds of molecules that stay in the body for months or years. She stated that she and her colleagues who study these chemicals have become concerned when the chemicals are used in consumer products since they tend to be stored in fat, which is one reason PBDEs are found in breast milk. These are not naturally occurring chemicals in the body so the body does not have the ability to expel the toxins. These are persistent chemicals that will stay in the body for a long time. She offered that human health data is available on PBDEs in the home. She related that asbestos is an occupational chemical that causes mesothelioma cancer in those who work with asbestos. She reported that children exposed to PBDEs suffer intelligence issues similar to those found in children exposed to lead. The PBDEs harm fertility. She stated that significant research has been done on animals.

MS. BLOOM explained that the reason many of the flame retardant chemicals are in our homes is due to California's furniture flammability standards and its distribution of furniture on the west coast. Chances are if the furniture label indicates it meets the California standard, it may contain PBDEs, particularly if the furniture was purchased prior to 2004. She offered her belief that it is important to protect the population from these types of chemicals. She said it is difficult to know the impact but she thought it may be a huge boon to human health. She pointed out studies with animals have shown an increase in neurological impairment, hyperactivity, and certain types of cancer can be caused by these types of chemicals. She indicated an increase in those types of behaviors has been found in children. She asked whether these chemicals should be allowed to impact our children. She agreed that it is important to ensure that the replacements are not problematic. She offered her belief that decabrominated diphenyl ether (decaBDE) is being replaced with decabrominated diphenylethylene which is only two atoms apart, has been found to be similarly persistent and biocumulative. She thought it may also be toxic.

4:28:32 PM

CHAIR OLSON banned related that pentaBDE and octaBDE were banned in 2004. He asked whether any noticeable reductions in the use of pentaBDE and octaBDE have occurred.

MS. BLOOM answered that pentaBDE was used in California from the 80s until 2004. She reported that furniture has an average life span of three owners or 30 years. She also stated that the chemical leach out when the furniture is taken to the landfill. However, most of the pentaBDE furniture is still in our homes. She stressed the importance of identifying the furniture containing pentaBDE so it could be safely disposed and not leach into our water, soils, and food supply. In response to Chair Olson, she mentioned that she had a sample of furniture taken from Alaska's Capitol Building and tests showed it did contain pentaBDE.

REPRESENTATIVE CHENAULT commented that mesothelioma associated with asbestos, which was used in houses for years. He stated the asbestos was replaced with a man-made fiber. He surmised that it is likely that insulation is probably just as bad as asbestos insulation. He remarked that this is just another example of replacing a chemical with another chemical.

4:31:43 PM

DAVID HEIMBACH, Director, University of Washington (UW), Burn Center, state that for the past 35 years he has been the director of the UW's Burn Center. He pointed out that he has taken care of all the severely burned people from Alaska, or about 30 per year. He offered his belief that fire retardants save lives. They provide minutes extra to get out of a burning room or home and protect them. Children are most likely to suffer from burns when mattresses, pillow, sleepwear, or furniture do not contain fire retardants. He remarked that he has listened to today's testimony. He recalled one person testified that when PBDEs products burn it produces dense black smoke. He related that pure pine wood burns and releases 250 toxic chemicals that are far more toxic than the ones under discussion and plastics probably contain 500-600 toxic chemicals when they burn. He said that dense black smoke is trivial compared to smoke from burning many other products. He emphasized that it is not true that many safer retardants are available. It took 40 years to figure out that decaBDE causes bad things to happen, mostly in large doses in animals. He related his understanding that a definitive study has not been performed that identifies harm caused to humans. He remarked that relating PBDEs to lower intelligence is somewhat similar to the arguments for asbestos removal. Once asbestos was determined to be dangers people rushed to remove it only to find

it is far more dangerous to the people removing it than it would have been to leave it alone.

DR. HEIMBACH said he became interested into PBDEs when the State of Washington passed its laws without ever asking anyone in the burn community for their views. He was not aware of the law until it had already passed. He appreciated the testimony that highlights no one knows whether the replacements will be safer since it took 40 years to discover toxicity with decaBDEs. He related a recent scenario in which a 9-month-old baby was in a crib, laying on fire retardant pillow on a non-fire retardant mattress. A candle fell into crib and the little baby was charred up to her mid-chest to the point where her chest was laying on the pillow. He observed that the pillow was not burned at all. He offered his opinion that this is as clear an example as he could provide to demonstrate what fire retardants can do. He felt certain more will be injured and die from no fire retardant in products than ever will be from people thinking they've inhaled PBDEs toxic chemicals. He has served as the President of the ABA and the ISBI. He spent 12 years on the Medical Advisory Board for the Shriners Burns Hospitals. He concluded that he had the unique experience of receiving an award from the Dalai Lama for his work in burn care in developing countries.

4:36:52 PM

GORDON NELSON, Ph.D., Vice President, Florida Institute of Technology, speaking on behalf of himself, stated that he has a doctorate in Organic Chemistry from Yale University. He related he first started working with flame retardants in plastics when he was at the General Electric Company in the early 1970s. He reported that decaBDE has been used in televisions and appliances since 1975. In 1974, the U.S. Consumer Product Safety Commission found televisions were of unreasonable risk due to fire hazards. At the time approximately 200 deaths per year were attributable to fire. When the Underwriters Laboratories, Inc. (UL) adopted voluntary regulations, which became effective in 1975, the deaths were reduced to zero. He reported that each person has a 40 percent probability of experiencing a fire in his/her lifetime or to have the fire department come to our home. He reported that televisions and plastics made without a flame retardant will create a life-threatening fire. He said he has seen these fires happen. He emphasized that octaBDE and pentaBDE have not been manufactured in the U.S. since January 2005 and were only small volume chemicals. DecaBDE is manufactured in large quantities and is

the main fire retardant chemical used for a variety of products, including televisions and backing for carpet. He said that decaBDE does not have the same properties as pentaBDE or octaBDE.

4:39:22 PM

DR. NELSON reported that the European Union has extensively tested decaBDE by the risk assessment process and has been found to be of reasonable risk. Thus, decaBDE is not banned in Europe. He related that decaBDE has and is to be phased out by December 2012. He stated that it is not only the manufacturers that have made the commitment but also ICL Industrial Products, which is the largest U.S. importer of decaBDE. Thus, it is not just the manufacturers who have agreed to the phase out since importers have banned decaBDE as well, except for the military and transportation uses scheduled to be phased out by December 31, 2013. He related that often a one for one replacement is not possible and may need a new flame retardant or plastic for an application.

4:41:04 PM

DR. NELSON recalled recalled earlier testimony on Wal-Mart's testing and on the fiscal note. He stated that Direct Analysis in Real Time (DART) High Resolution Mass Spectrometry can offer immediate results, noting that waving a piece of plastic by the instrument would identify the flame retardant. However, the equipment costs $210,000 and takes a scientist to operate. He remarked that he was please to see the proposed committee substitute (CS) has an effective date of 2013 given that the EPA has a consensus process underway and major manufacturers have agreed to phase out the project. This would allow that timing to occur. He related that a similar bill is in the other body and he prefers some of the language. He referred to page 2, lines 5-6 of HB 63 which refers to a flame retardant that is not a brominated flame retardant.

4:42:53 PM

DR. NELSON also referred to page 4 of HB 63 which defines "brominated flame retardant" as a flame retardant that contains pentaBDE, octaBDE, and decaBDE. He indicated that as a chemist a brominated flame retardant is any chemical product used for flame retardant purposes that contains the element of bromine. He offered his belief that the language in the bill would be confusing to scientists. He preferred some language in the

Senate version of the bill that removes the proposed sections "review by departments" and "list of toxic chemicals." The Senate version would also insert a simpler provision of a multistate chemicals clearinghouse. He encouraged the committee to consider requiring the clearinghouse to work with the EPA and European agencies as well. He summarized that he agreed with comments asking whether the bill would accomplish anything as written given that the EPA has a planned phase out. He offered his belief that it does not accomplish much.

4:44:18 PM

DR. NELSON said, "If decaBDE were a hazard, which it's not, the legislation doesn't provide for take back. It doesn't prohibit placement of used products in landfills. It doesn't remove products." These products will be around for 30 years and the exposure will not change. If a hazard exists, much more should be done. He urged Alaska to allow EPA to do its work. He suggested Alaska establish an intergovernmental clearinghouse to review these materials and other materials since it would be useful not only for Alaska and other states. He concluded that the agreement with EPA sets forth a rational transition to newer alternatives which is critical in these circumstances.

[HB 63 was held over.]

4:47:04 PM

ADJOURNMENT

There being no further business before the committee, the House Labor and Commerce Standing Committee meeting was adjourned at 4:47 p.m.