

30 June 2014

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RE: SPFA Comments: Safer Consumer Products (SCP)  
Spray Polyurethane Foam Systems Containing Unreacted Diisocyanates

Mr. Palmer,

Please find enclosed SPFA's commentary regarding the 2014 SCP initial Priority Product selection of Spray Polyurethane Foam Systems Containing Unreacted Diisocyanates.

If you have any questions please feel free to contact myself at [kurtriesenberg@sprayfoam.org](mailto:kurtriesenberg@sprayfoam.org) or 202.680.2609, or SPFA's Technical Director Dr. Richard Duncan at [rickduncan@sprayfoam.org](mailto:rickduncan@sprayfoam.org) or 703.222.4269.

Regards,



Kurt Riesenber  
Executive Director  
SPFA

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RE: SPFA Comments: Safer Consumer Products (SCP)  
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The Spray Polyurethane Foam Alliance (herein after referred to "SPFA") is the leading Spray Polyurethane Foam (herein after referred to as SPF) industry trade association representing the complete value chain of SPF professionals, including manufacturers, distributors, contractors and other parties. SPFA appreciates the opportunity to provide written comments to the California Environmental Protection Agency's Department of Toxic Substance Control (herein after referred to "DTSC") regarding their proposal to include *Spray Polyurethane Foam Systems Containing Unreacted Diisocyanates* as one of three initial priority products identified under the new Safer Consumer Products (SCP) program. SPFA also commends the state of California for embarking upon such an aggressive route of consideration of the health and safety aspects of many consumer products. However, while the intent of the program is admirable the execution by the DTSC represents an unfortunate failure.

On March 13, 2014, the DTSC held a press conference to announce the first three priority products under the new Safer Consumer Products program. SPFA believes that the new SCP program managed by DTSC offers a critically flawed process and has wrongly characterized and identified SPF as a Priority Product. Despite the fact that DTSC has proposed to include SPF while asserting it is not initiating a ban of the product, the March 13 announcement has resulted in preemptive, immediate and significant financial harm to many of our manufacturers and contractors across the state of California, precisely the effect the DTSC indicated was unintended. This is due to the unprofessional manner in which the program was rolled out, miscommunication to the public and stakeholder industries as to the purpose and intent of this SCP program, and continued, compounding failure to make corrections to DTSC-originated information that has been proven incorrect.

SPFA's comments follow as structured under common categories, but concerns over DTSC actions, misinformation and inaccuracies, and industry economic impact run throughout.

## **1. No Industry Involvement**

Being the leading association of the U.S. SPF insulation and roofing industry, SPFA was not contacted by DTSC until one hour before the start of the March 13 press conference announcing the draft Priority Products. Neither related trade associations representing SPF chemical suppliers, nor any of the chemical supplier companies in the SPFA membership, were contacted prior to the March 13 press conference. Despite claims by senior DTSC staff during the March 13 announcement that all stakeholders were included in the product selection and Product Profile, no company or SPF industry association was apparently aware that SPF was one of the initial Priority Products. Preparation for roll-out was conducted in the dark.

SPFA and other related trade associations have maintained a longstanding history of productive cooperation with other state and federal agencies, including US Environmental Protection Agency (EPA) and US Occupational Safety and Health Administration (OSHA), regarding the safe, healthful and proper installation of SPF insulation and roofing products. These named-agencies performed a courtesy review of SPFA's comprehensive national ISO17024-compliant professional certification program, heavily focused upon health, safety and proper installation in 2012. SPFA and our members believe in the product, its health and safety, and performance and always are enthusiastic to embrace science-based, transparent discussions that can lead to greater product understanding and fair treatment.

Additionally, while some SPF opponents may consider the information provided by industry to be biased, SPFA and other industry trade associations have access to considerable independent research reports and papers that should have been considered by DTSC prior to development and publication of the Product Profile. Without advanced industry participation the resulting Product Profile written by an ill-informed DTSC research scientist was published with significant research and technical flaws, inaccurate conclusions drawn from cited studies, insufficient coverage of relevant studies, and lacked appropriate internal/peer review. This Profile document remains available on the DTSC website today despite repeated formal requests for its removal by the industry until corrections could be made. This document has been circulated by detractors and competitors of the SPF industry, intentionally spreading incorrect and negatively impactful information on SPF, which essentially represents state-sponsored mis-information of a product. The presumption among uninformed customers and the public is that information presented on a California state website will be truthful, accurate and vetted prior to publication, which reinforces our detractor's intended impact. The fact remains, however, that the information is demonstrably incorrect, unvetted, still available, and continues to produce negative impacts.

Following the first public workshop the SPF industry consisting of the American Chemistry Council (ACC), SPFA and member companies, coordinated and delivered a 2/3 day informational workshop on all aspects of SPF for DTSC and EPA leadership. The industry felt this effort to be critically important due to the demonstrated lack of understanding among DTSC staff, exhibited in the DTSC documents and statements regarding SPF. This meeting was constructive, but unfortunately resulted in no meaningful steps toward correction of the errors in the Profile document. SPFA and the entire industry, along with all SPF businesses in California would have been pleased to provide useful information PRIOR to development and publication of the Profile document. This could have prevented the disastrous document that DTSC staff published in a vacuum of expert knowledge and information.

## 2. Insufficient Coordination with Relevant Government Agencies

Any chemical hazards associated with Isocyanates used in SPF are well understood and the safe use of these chemicals is already sufficiently and effectively addressed by several other state and federal agencies.

In 2009, SPFA and the SPF industry engaged voluntarily in a cooperative program with several federal agencies including US EPA, NIOSH, OSHA and CPSC to improve hazard communication and worker safety when using SPF. After five years of productive cooperation, dramatic improvements to SPF worker safety have resulted including the noted-agencies courtesy review of SPFA's comprehensive, ISO 17024-compliant national professional certification program, launched in 2013.

The US EPA continues to influence the safe use of Isocyanates through their existing Chemical Action Plan (CAP), solely focusing upon Isocyanates. In addition, US OSHA has established a National Emphasis Program (NEP) on the use of Isocyanates (all Isocyanates across multiple sectors which are much greater users of Isocyanates than SPF) in the workplace, which includes installation of SPF. Cal-OSHA is currently and actively participating in this NEP which was launched in June 2013, is currently in effect, and extends health and safety compliance requirements down to companies with even a single employee (per OSHA Directive CPL 03-00-017 / [https://www.osha.gov/OshDoc/Directive pdf/CPL\\_03-00-017.pdf](https://www.osha.gov/OshDoc/Directive%20pdf/CPL_03-00-017.pdf) XII. Program Procedures, 1. Targeting). The lack of understanding by DTSC of the NEP is demonstrated in Figure 1 below, indicating no awareness that small and independent contractors are in fact included in this extensive NEP. This further demonstrates negligence in research, failure to contact other relevant governmental stakeholders, and duplication in program coverage.



Figure 1. Populations of Concern slide from May 7, 2014 DTSC public workshop / SPF Breakout Session <http://www.dtsc.ca.gov/SCP/upload/May7WorkshopSPF.pdf>

According to OSHA: *The goal of this instruction (NEP) is to reduce employee exposure to Isocyanates shown to potentially cause work-related asthma, sensitization (respiratory, skin) and other occupational health effects. This goal will be accomplished by a combined effort of inspection targeting, outreach to employers, and compliance assistance. By performing activities (enforcement and outreach) related to this hazard, OSHA aims to raise awareness of the occurrence and severity of occupational health hazards related to or associated with Isocyanates in all industry sectors.*

This federal and state OSHA effective and targeted outreach to all Isocyanates using industries, in conjunction with strategic partners and various cooperative industry associations, means that the other assertion of the DTSC in their presentation during a recent public workshop breakout session on SPF, suggesting that outreach and information on Isocyanates are lacking, and that “independent contractors and DIYers” are unaware of the risks, have insufficient training, use little or no PPE, and lack engineering controls are simply false statements and counter to the purpose of the OSHA NEP. It is also important to distinguish, as is suggested elsewhere in this document, that types, chemistries and installation environments of SPF vary from professional to DIY and such distinction fails to me made in the Product Profile. “DIYers” may utilize low-pressure “kits and cans” which have enormously lower exposure potential and lesser PPE requirements, as acknowledged by US EPA, than high pressure professional SPF systems. The greatest volume of SPF is installed by professionals using high pressure systems, and that use of Isocyanates is already heavily regulated by the OSHA NEP.

As elaboration, the NEP indicates that a variety of expectations must be accommodated by workers using Isocyanates, including OSHA inspections, proper record-keeping, performance of exposure assessments, knowledgeable use of Proper Protective Equipment (PPE), use of effective and standardized hazard communication, existence of respiratory protection plans, related worker medical monitoring and evidence of appropriate training. This is a comprehensive and effective program that covers health and safety of the workers installing and manufacturing products utilizing Isocyanates, including spray polyurethane foam insulation and roofing.

The OSHA NEP is comprehensive and enforceable. It addresses every imaginable concern regarding worker safety and exposure to Isocyanates across industries including Spray Polyurethane Foam. Presentations by agency representatives have taken place directly through SPFA and ACC/CPI to members, agency representatives have presented at the SPFA convention every year for the past five years on these issues, and the constructive dialogue between the SPF industry and US EPA, OSHA and NIOSH have resulted in a multitude of jointly-created programs, informational documents, outreach and agency guidance. The professional installation of high pressure SPF systems is well in hand by EPA and OSHA. This results in healthful, safe and proper installation practices which benefit and protect workers, customers, and identified sensitive sub-populations.

SPFA contends that DTSC should abandon its efforts to duplicate existing state and federal programs, produce yet another layer of complication and regulatory bureaucracy at the expense of California constituents and businesses, and allow the existing agencies that have expertise in this area to maintain a leadership role. Perhaps there is a constructive support-role for DTSC with these already leading agencies and programs?

To become familiar with the extensiveness of the OSHA NEP, the Directive can be found here: [https://www.osha.gov/OshDoc/Directive\\_pdf/CPL\\_03-00-017.pdf](https://www.osha.gov/OshDoc/Directive_pdf/CPL_03-00-017.pdf).

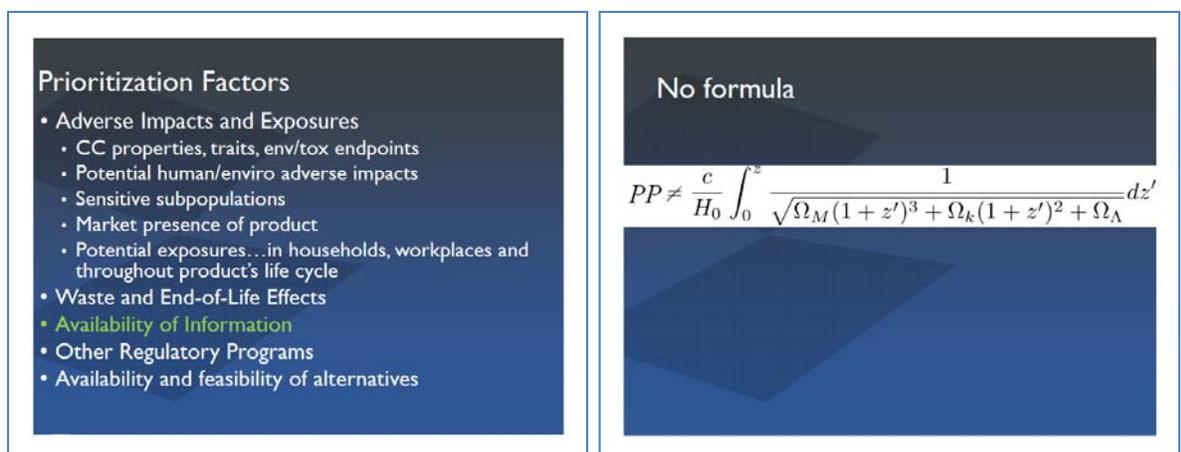
In addition, the California Energy Commission (CEC) has recognized the distinct energy savings provided by SPF insulation and roofing, and these advanced technologies are set to be an integral solution in the new 2016 Building Energy Efficiency Standards (Title 24), as well as Governor Brown’s initiative for zero-net energy homes by 2020. This solution is now in serious jeopardy. California constituent businesses such as homebuilders make purchasing decisions several years ahead of construction. Many builders, such as those that spoke at the recent public workshops and whose trade association CBIA has submitted written comments, have embraced the energy performance, proven healthful and safe nature of spray polyurethane foam. Those that have done so in an effort to meet the increasing state

energy efficiency requirements, and customer demands for interior comfort and indoor air-quality, are now questioning if the market confusion created around SPF by the DTSC's actions and misstatements represents an undesirable product selection. This market confusion emanating from the DTSC regarding SPF will already have cascading negative impacts for years to come stemming from damages to businesses already taking place, all based upon persistently available incorrect information promulgated by DTSC.

SPFA believes that including SPF as an initial priority product in the DTSC/SCP Program is duplicative of ongoing programs at the state and federal levels. At several of the recent DTSC public workshops on SPF, SPFA challenged the DTSC staff to define explicitly how this new SCP program's focus upon SPF will differ from the work already being conducted in the same areas by other state and federal agencies. No explanation was forthcoming other than to suggest this is a more open and informal, flexible process than the mandates of the other agencies. SPFA contends that there is no response provided to justify or explain how this DTSC process or outcome is different or unique, nor how the resources associated with it are a valid use of state taxpayer dollars. Work in the area of Isocyanates health and safety should be deferred to the existing programs already focusing upon the chemical itself, and the people that install it.

### **3. Arbitrary Selection**

DTSC has publically described the product selection process as starting with a list of over 1,100 chemicals with specific hazard traits identified by California Proposition 65. Through exclusive meetings held between DTSC and the Green Ribbon Science Panel (GRSP), DTSC was aided in identifying 153 Chemicals of Concern, which included Isocyanates. The constituency of the members of the GRSP that provided input to DTSC on the selection of spray polyurethane foam, along with other products, remains a mystery along with the comments and input provided. When asked in the recent public workshops who contributed comment and what content was shared as a basis for selecting SPF, no identification was provided and justification of anonymity of these people was offered by DTSC to maintain the free-flow of information. This private, one-sided approach is indefensible and not appropriate in the course of duties of a state agency or its officials.



\*Figure 2. DTSC Presentation May 7, 2014 Public Workshop (Sacramento, CA)  
<http://www.dtsc.ca.gov/SCP/upload/May7WorkshopOverview.pdf>

When engaging in this SCP selection and prioritization process that will have such sweeping, wide-ranging and serious consequences, it is discomfoting how a state agency such as DTSC/CalEPA admittedly has no formula to utilize in the process. Associations have by-laws to follow, and corporate law dictates the legal operation of a business. A state agency should also be expected to operate within some reliable, consistent, predictable framework which has been demonstrated as lacking in this case by DTSC's own admission in Figure 2 above.

DTSC staff also stated there was no systematic ranking or scoring of chemicals used to identify the proposed priority products. Having SPF identified as one of the three initial priority products leads to public and customer misperception that SPF/Isocyanates are among the top three chemical hazards, which has resulted in significant de-selection of SPF insulation and roofing since the March 13 announcement. DTSC staff has indicated that this perception would be incorrect among customers and the public, although having been made aware of this resulting broad misperception no substantive actions have been taken to correct the erroneous information maintained on the DTSC website regarding SPF.

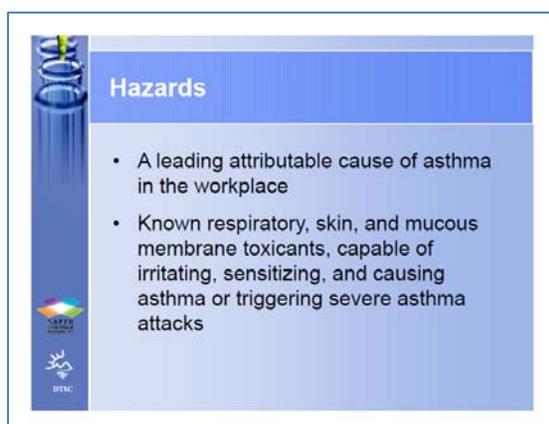


Figure 3. Hazards slide from May 7, 2014 DTSC public workshop / SPF Breakout Session  
<http://www.dtsc.ca.gov/SCP/upload/May7WorkshopSPF.pdf>

In the recent DTSC public workshops, Isocyanates were consistently referred to as a leading attributable cause of occupational asthma, as noted in Figure 3 above. According to data provided by the US Center

for Disease Control (CDC) and California’s own Department of Health (DoH)/California Center for Disease Control in a 2013 report: *“Asthma in California: A Surveillance Report”* tracks asthma data for the state of California, and includes a chapter on WRA. The updated chapter includes rates of WRA by industry and occupation, types of exposure, measures of the impact of WRA, and data on the characteristics of people with WRA, such as gender and age.

In this report, which studies Work Related Asthma (WRA) during the fifteen-year period of 1993 – 2008, Bleach, Chlorine, Latex, Ammonia, Formaldehyde, Glutaraldehyde, and Sulfuric Acid were all identified (in order) as higher rates of WRA-producing asthmagens than the eighth-ranked Diisocyanates (Figure 4.). Bleach was attributable to 77 cases of WRA representing 1.6% of cases, while Diisocyanates were attributable to 23 cases of WRA representing 0.5% of cases. With six other products/chemicals on the list falling after Diisocyanates, including Rat Antigens and Flour, California’s own data indicates that Diisocyanates cannot be considered a leading cause of occupational WRA. The materials and chemicals ranking higher on the list than Diisocyanates are much more prevalent in construction and even consumer products than Diisocyanates generally, and SPF specifically. SPFA contends that DTSC and the SCP program could have produced a much greater impact upon the health and safety of California workers and consumers if the chemicals most prevalent and impactful to WRA as demonstrated by California’s own data were selected as Priority Products. Why they were not continues to go without explanation.

104 Asthma in California

Number and Percent of WRA Cases Reporting Asthmagen Exposures at Work, California 1993–2008

Asthmagen Exposure	N	%
Bleach	77	1.6
Chlorine	59	1.3
Latex	50	1.1
Ammonia	43	0.9
Formaldehyde	37	0.8
Glutaraldehyde	28	0.6
Sulfuric Acid	27	0.6
Diisocyanates	23	0.5
Rat Antigens	22	0.5
Epoxies	19	0.4
California Redwood Dust	17	0.4
Quaternary Ammonium Compounds	16	0.3
X-ray Chemicals	13	0.3
Flour	12	0.3

Note: Up to 3 exposures reported for each case; asthmagens are known asthma inducers as defined by the Association of Occupational and Environmental Clinics, [www.aoccc.org](http://www.aoccc.org).  
Data Source: California WRAPP Surveillance Data, 1993–2008 (N=4,677)

Figure 4.  
[http://www.cdph.ca.gov/programs/ohsep/Documents/Asthma\\_in\\_California2013.pdf](http://www.cdph.ca.gov/programs/ohsep/Documents/Asthma_in_California2013.pdf)

This alone demonstrates failure to present evidence supporting the DTSC’s authority to include SPF insulation and roofing as a Priority Product within the new SCP program and should further invalidate SPF’s continued scrutiny and harm by the Department.

SPFA believes that SPF was selected as an initial Priority Product in an arbitrary and capricious manner, and that a transparent and systematic product selection process needs to be in place prior to any public announcement of a Priority Product. SPFA contends that SPF needs to be immediately removed as an initial Priority Product due to the exceptional lack of actual evidence provided by the DTSC.

#### **4. Flawed Product Profile**

Concurrent with the March 13 announcement, DTSC published a Product Profile, stated as the rationale for product selection, describing the perceived hazards with unreacted Isocyanates in SPF. Since this Product Profile was developed based on limited in-house research by a DTSC staff scientist and no obvious consultation with other government agencies and industry members, it is fraught with errors and mischaracterizations. There are so many objectionable and unrelated portions of the Profile document that one literally would need to go line by line to correct (which ACC/CPI has effectively done in previously submitted correspondence), but a few of the more egregious errors are outlined below:

- The Product Profile incorrectly includes HDI and TDI, types of Isocyanates that are not used in SPF. Only MDI is used in SPF. The EXTENSIVE inclusion of HDI and TDI has referenced numerous hazard impact studies that do not apply to SPF, and suggested considerable health and safety hazards related to SPF that are not present due to the lack of these misidentified Isocyanates. The erroneous inclusion of TDI as being in SPF extends to further inaccurate criticism of SPF by suggesting it falsely as a carcinogen. Because the DTSC has placed authoritative-sounding yet completely wrong statements in the Product Profile, the equally wrong perception of SPF being a carcinogen due to the alleged presence of TDI is wrong, and being capitalized upon by SPF detractors and insulation and roofing competition that tell their customers SPF is a carcinogen based on your completely incorrect information. Additionally, so incredibly many of the examples and studies cited in the Product Profile are cobbled together to produce a picture of Isocyanates and SPF, yet almost all of them are directly dealing with TDI, HDI, multitudes of truck bed liner installations which are a completely different product and installation practice, overturned trucks of chemicals producing exposure to police, MDI-based spray painters and an exposure to MDI-based rock glue, etc that have absolutely zero to do with SPF insulation and roofing. In the case that a study does reference MDI or typically the exposure “potential” of SPF, very little data-based evidence exists regarding SPF in the SPF Product Profile. If there is so much evidence against these other industries, technologies, chemicals and products that are cited in the SPF Profile, and so little beyond anecdotal for SPF, perhaps those are the products and industries that you should focus upon?
- MDI exposure hazards from SPF application may exist for professionally-trained installers for a short period of time during and immediately following installation of high-pressure SPF insulation and roofing systems. This hazard, during and immediately after high-pressure SPF application, is mitigated by proper engineering controls and personal protective equipment. In the case of interior/confined-space installation, ventilation practices allow for the building to be reoccupied in a timely manner based upon manufacturer installation instructions. In the case of roofing or exterior SPF insulation installation, higher rates of dissipation due to natural ventilation, installation practice and procedures, and MDI’s inherent reaction to ambient moisture rendering it almost immediately inert result in considerably lower exposure potential. This is

recognized by the industry and the US EPA, resulting in lesser requirements for respirator use in exterior settings. DTSC and the Product Profile do a disservice to the reader and the industry by failing to adequately make distinctions between insulation (interior) and roofing (exterior) SPF materials, differing chemistry resulting in different performance, and differing installation environments.

- The Product Profile states that SPF was selected based on its use of Isocyanates and the false-claim that Isocyanates are a leading attributable cause of occupational asthma or WRA. As noted elsewhere in this document there is no documented evidence to support this claim. The product profile incorrectly stated that Isocyanates are a leading cause of occupational asthma. This important data was overlooked by DTSC. Based on available California data Isocyanates exposure from SPF is not widespread, paints a false picture of SPF to the reader, and invalidates SPF's selection as a Priority Product.
- The Product Profile suggests using alternatives to SPF insulation, including Cellulose, Natural Fibers, Plastic Fibers, Phenolic Foam, Rock and Slag Wool, Fiberglass and other rigid foams. This recommendation is exceptionally premature, notably due to the DTSC's own statements that *Possible alternatives mentioned in this (Profile) document that may meet one or more of the product's functional requirements are not a determination by the department that these alternatives are safer than the product-chemical combination and should not be construed as an endorsement of any alternative or product.*

If no assertions are being made about these alternative, competing products based upon some regulatory force of law or actual findings against SPF by DTSC, why are they being offered at all? None of the noted products come close to the proven thermal, air-sealing and IAQ performance of SPF which immediately undermines the high performance building initiatives in the state. Although DTSC includes SPF roofing in the SPF Product profile, DTSC offers no viable alternatives to that technology, unless DTSC believes that fiberglass works well as a roofing system. Lastly, and most interestingly, DTSC acknowledges a desire to avoid unfortunate alternatives or substitutions, yet includes Phenolic Foam in the list of suggested alternatives. Phenolic Foam is synonymous with urea-formaldehyde foam (UFFI), and is known to off-gas and contain added formaldehyde, a known carcinogen to humans. Many of these products have been banned in Canada and either banned or restricted in several states in the United States. California's own Department of Health recommends against using products with added formaldehyde or that can off-gas the chemical. Not only is the performance of these "alternatives" vastly inferior to SPF, but in some cases the suggested alternatives will result in even greater health threats and performance failures than SPF as the subject of the Product Profile. This is inexcusable and inexplicable. It is notable that SPF is the only insulation product to have completed an independent third-party model Life Cycle Assessment (LCA) and corresponding Environmental Product Declarations (EPD) examining the product from cradle to grave, including embodied energy and energy-use phases. No other insulation category has met this level of commitment to information, knowledge and product stewardship.

This premature assessment and recommendation in the product profile has had an immediate and substantial negative effect on the SPF market in CA and inappropriately been delivered by the DTSC.

- According to the Product Profile worker fatalities associated with Isocyanates exposure are offered. The SPF industry and SPFA take any worker injury, in particular a fatality, very seriously. That is why we have worked so hard to provide our demonstrable health and safety information and outreach efforts. However, in the Product Profile on SPF systems (which only use MDI Isocyanates) the examples provided by DTSC include a maintenance worker who developed Isocyanates-induced hypersensitivity pneumonitis and died after repairing an MDI foaming system at a facility that made artificial plants with polyurethane foam bases (NIOSH, 1994a), an asthma attack in a 37-year-old man which led to death from chronic exposure to TDI in spray paints (Fabbri et al., 1988), and a 45-year old man who died due to acute asthma attack after 12 months on the job spraying MDI based bed liners onto the floor and sides of cargo vans (NIOSH, 2006). These examples have absolutely nothing to do with SPF, and the last example (NIOSH 2006) is that of one untrained individual that misused the truck bed liner product. These fatalities are unfortunate, but not representative of the SPF industry and should not be used to characterize our industry in any way.
- The Product Profile fails to make proper distinctions between low and high-pressure spray polyurethane foam products, and between roofing and interior insulation products which are designed to perform differently to suit their function and installation environment.

The Product Profile document, a subject of consistent objection recorded by the industry throughout all three public workshops and within private meetings with DTSC staff, was acknowledged by the DTSC to contain errors. Pronouncements were made by DTSC of unintended resulting negative impact from their actions and failure to adequately communicate the purpose of the new program, and verbal assertions were offered by DTSC leadership that steps would be taken to correct the errors in a timely manner, four months ago. DTSC subsequently added what is effectively a disclaimer as Page 2, "Notes to Readers of DTSC's Priority Product Profiles" of the SPF Priority Product Profile:

### NOTES TO READERS OF DTSC'S PRIORITY PRODUCT PROFILES

This product profile is a summary of information compiled by DTSC as of March 13, 2014. It explains the department's preliminary rationale for proposing this chemical-product combination as a Priority Product with a Chemical of Concern. Its purpose is to inform the public of the department's thinking as of that date. The Department intends to use the profile to frame conversations with interested stakeholders that will enable us to refine the descriptions of the product and chemical(s) in the regulations that will establish the Initial Priority Products List. As the department receives additional information on the chemical and product described in this document, it may modify the description of the chemical(s) or product or both prior to issuing a public notice for rulemaking. Any such changes will be reflected in the rulemaking file. Therefore, readers should consider the following:

1. This product profile is not a regulatory document and has no force of law.
2. The department requests that interested stakeholders provide data on the chemical and product described in this document to assist us in the discernment process that will lead to our regulatory proposal.
3. By proposing to list this product-chemical combination as a Priority Product with a Chemical of Concern, the department is not asserting that the product cannot be used safely, only that there is a potential for exposure of people or wildlife to the Chemical of Concern in the Priority Product and that such exposure has the potential to cause or contribute to significant or widespread adverse impacts.
4. Possible alternatives mentioned in this document that may meet one or more of the product's functional requirements are not a determination by the department that these alternatives are safer than the product-chemical combination and should not be construed as an endorsement of any alternative or product.

Figure 5. Notes to Readers / DTSC SPF Priority Product Profile / Selection Rationale  
<https://dtsc.ca.gov/SCP/upload/ProfileSPF.pdf>

This "Note" falls far short of correcting the erroneous information demonstrated as being contained in the document. It simply puts a band-aid on the document and offers excuses for shoddy work and errors which should have been avoided if the developmental process was conducted appropriately, openly, professionally, and with industry input.

Due to the significant misinformation contained in the Product Profile and the resulting impact on the SPF business in CA and nationwide, SPFA asks that the Product Profile either be immediately removed from the DTSC website until appropriate corrections can be made, or until a determination of removing SPF from the SCP program can be conducted.

## 5. Voluntary Health, Safety and Performance Outreach, Certification and Training

SPFA and its partners in the industry have a long-standing demonstrable commitment to the safe and effective use of SPF. Manufacturers have various training and proprietary certification programs for their installers/customers. Contractors have ongoing training programs for their employees heavily focused upon health and safety.

SPFA released the aforementioned ISO17024-compliant Spray Polyurethane Foam Professional Certification Program (SPF PCP) after extensive development by the industry and coordination with US EPA, OSHA, NIOSH and CPSC. This program has been operating for approximately fifteen months and has realized broad adoption and participation. Additionally, the ACC Center for the Polyurethanes Industry (CPI) initiated federal-grant funded development and deployment of online SPF/Isocyanates health and safety training which is regularly reported upon to the various federal agencies. These free

yet comprehensive online programs, available to the entire public, are a prerequisite for completion by SPFA PCP candidates even before they can obtain PCP certification at the lowest, entry level of Assistant.

SPFA's PCP certification program is accessible, affordable, and applicable to all California professional contractors. SPFA has a multitude of certified contractors in the state and is willing to coordinate with the DTSC to promote this program and help these contractors to demonstrate their expertise.

## **6. Negative Economic Impact**

Publication of the flawed Product Profile has had immediate and negative impact on SPF contractors in California, and to some degree, in other locations throughout the U.S. Since it is published by a government agency, the public perception is that the Product Profile is vetted and factually accurate. It is not.

As a result of the inaccurate Product Profile and the excessive DTSC/SCP media coverage which has compounded the mis-messaging of the Department, several existing contracts for SPF insulation and roofing have been cancelled by builders and homeowners across the state in favor of alternative products. Some of these cancellations are preemptive, as a result of fears caused by potential future ban of the product, while others are cancelled or deferred due to dissemination of the inaccurate product profiles by competing insulation and roofing technologies. These concerns and sentiments are echoed in the California Builders Industry Association submitted comments under their letterhead.

According to a recent SPFA survey of California SPF manufacturers and contractors, one California SPF contractor states "Architects are specifying alternative materials due to doubts about the intent and outcome of the potential DTSC regulation. Competitive products are pouncing on the opportunity to create fear, uncertainty and doubt with customers regarding selection of SPF products." Yet another California SPF contractor indicates they lost eight projects which had an average of 100 houses each by a builder due to possible litigation issues resulting from DTSC actions, which amount to several millions of dollars of business that has vanished permanently.

Also according to the SPFA survey, 61% of respondents are SPF contractors, 22% are SPF manufacturers, and 16% are SPF distributors doing business in California. 50% of the respondents indicated that business is down in California during the period of March to June 2014 (the period of time since DTSC's announcement), compared to either forecasts or the comparable period in 2013. 26% of respondents have had unexpected recent change orders away from SPF to different products during the same period.

These are some limited examples obtained by SPFA in a short period of time demonstrating the economic impact that this DTSC mishandled action has had on the SPF industry. The immediate loss of business by small and medium sized SPF California contractors and manufacturers cannot be sustained for the years it may take to complete the SCP process. This translates to not only a significant loss of revenue for these companies, but also to a substantial loss of skilled jobs throughout the state, and impaired effectiveness of energy reduction initiatives.

## **7. DTSC Requested Clarifications and Input**

The DTSC requested input during the series of recent public workshops to better characterize and understand SPF, AFTER the developmental process, selection of SPF, subsequent announcements and publication of the erroneous Product Profile. SPFA has stated on record at the workshops and privately

to DTSC its confusion regarding the terminology utilized by DTSC’s selection of Spray Polyurethane Foam Systems Containing Unreacted Diisocyanates.



Figure 6. Exclusions slide from May 7, 2014 DTSC public workshop / SPF Breakout Session  
<http://www.dtsc.ca.gov/SCP/upload/May7WorkshopSPF.pdf>

According to Figure 6, “Cured, rigid SPF products” are excluded from this SCP program. The confusion regarding this comes from the fact that all high pressure SPF insulation and roofing systems must be installed to exist. When they are installed they are created by spraying heated and pressurized liquid (“wet”) chemicals through hoses and a gun. When the two components exit the gun and interact for the first time they have already begun to react before they hit the surface and expand. At this stage the exothermic reaction creates what will be dry, cured and complete SPF.

In the recent DTSC public workshop breakout sessions on SPF, the DTSC staff indicated a desire to know “Are the definition and terms clear and unambiguous as to which related products are included or excluded?” The answer to that question is decidedly no.

The phrase “Spray Polyurethane Foam Systems with Unreacted Diisocyanates” is itself ambiguous and unclear. As noted above, all SPF systems must be installed to exist. During the installation the chemicals and materials are reacting to form the final product. During the installation process there are inherently going to be Isocyanates reacting to produce the SPF. When the installation process is complete and the SPF is cured (ACC/CPI has submitted extensive information on curing and exposure research), no further unreacted Diisocyanates are present. The ambiguity stems from DTSC attempting to identify an early stage of installation required for all SPF as the targeted “Priority Product.” To be clear, an early-stage of the standard installation process, where Isocyanates are purposefully and intentionally reacting (which means they originate as unreacted), does NOT represent any actual product, and therefore cannot be singled out as a targeted Priority Product. There is simply no other way to state this.

Once the curing process is complete the SPF represents a “Cured, rigid SPF product” which has been identified by DTSC (Figure 6) as being excluded from this process. It is clear DTSC is not attempting to target installed, cured rigid SPF. But that final product cannot exist without the reaction process that precedes it. So ultimately the question becomes – what exactly are you trying to focus upon? The answer to that question remains elusive despite these recorded objections from the industry. Hence the ambiguity and lack of clarity that are so elemental and central to this issue.

## 8. Conclusion

In addition to your anticipated responses to critical elements of this document, SPFA also requests that you provide responses to the following specific questions:

1. What exactly was the process used to reduce over 1100 chemicals to the top three, and specifically to select sprayfoam as a Priority Product?
2. How would you characterize the level of communication on these issues with the industry prior to announcing your initial priority products?
3. What were your primary sources of technical information, research and initial assessment that led to you selecting sprayfoam insulation and roofing?
4. What exactly do you mean with the phrase “sprayfoam with unreacted diisocyanates”?
5. Are you aware of the claimed negative impact upon the industry? What is you plan to mitigate this?
6. On a scale of 1-10, ten being perfect, how would you characterize the roll-out process of this announcement in terms of clarity and intended messaging? Will you be making any changes or improvements in future product selection? If so, what?
7. Please provide a specific list of “stakeholders” including contacts in relevant state and federal agencies that you claimed to reach out to during the developmental process of the selection of SPF within the SCP program.
8. How would you characterize your technical and operational familiarity with sprayfoam as a product prior to release of the Product Profile?
9. Today do you believe your developmental-period level of familiarity, expertise and research were sufficient to justify selection of SPF as an initial Priority Product?
10. Do you contend today that your regulatory authority to maintain SPF’s selection as a Priority Product is validated or not? Why?
11. Why has the SPF Product Profile not been removed from your website and corrected as has been indicated to the industry will be done several times?
12. Please cite specific examples demonstrating how this DTSC/SCP program differs from or complements, and avoids duplication with, existing state and federal Isocyanates health and safety programs.



Figure 7. Regulatory process slides from May 7, 2014 DTSC public workshop / General session  
<http://www.dtsc.ca.gov/SCP/upload/May7WorkshopOverview.pdf>

While the possible regulatory responses from DTSC in Figure 7 include potentially “No response,” which would be fully appropriate in the case of spray polyurethane foam insulation and roofing, the reckless nature and error-stricken path taken by DTSC to roll-out this new SCP process, the SPF industry, and many small to medium sized California SPF businesses unfortunately do not have multiple years to absorb the losses created by DTSC’s incorrect statements.

DTSC stated in a recent public workshop that they are a Department that typically focused upon hazardous waste management and this SCP program is something new for them, that they are also learning and improving. The expertise of the DTSC in these unrelated areas draws question to the Department’s ability to knowledgeably and effectively conduct reliable assessments of products under the SCP. The responsibility for operating the SCP program and Priority Product selection process is not an experiment with no consequences. Real businesses paying taxes in California are being materially damaged based upon DTSC’s actions and misinformation, and the DTSC’s mishandling of the SCP rollout is inarguable.

The new SCP program managed by DTSC in regard to SPF has been a series of failures at all levels of California government. Poor work was conducted by the Department staff in seclusion from knowledgeable experts. The “watershed” moment of the SCP announcement of draft Priority Products was conducted with exceptional pomp and circumstance, a great deal of public relations and was built up in a way that put an enormous challenge on the Department to get the process right on these initial products. In the case of SPF, this challenge has not been met.

The SCP program and DTSC staff created such media coverage as to leave any uninitiated member of the public left thinking these products are bad, dangerous, ill-fitted for use in their intended application (which was clearly stated as not intentional), and despite regular assurances that admittedly erroneous work would be corrected, today nothing meaningful or corrective has happened. The SPF industry is left to defend a product which is under scrutiny for erroneous reasons, during a very lengthy new and untested regulatory process. The originators of this information, the DTSC, are lacking such basic understanding of the product that creation and publication of the Product Profile and related documents represent negligence at best. We wait, we plead for reason, we attempt to work constructively with DTSC, we spend limited resources and time to stave off a disastrous impact upon the

industry that has already taken root, and we are left to do so with disingenuous partners in the DTSC that got it wrong from the beginning and continue to fail today.

The only thing that can surmount the stunning totality of the DTSC's failure in this regard is the real, unfortunate, and immediately damaging impact upon the marketplace and the families that rely upon these high performance businesses in the state. Mismanagement and apathy-toward-accuracy should not be permissible to this extent among even the most dysfunctional of our government bodies.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Kurt Riesenberg". The signature is fluid and cursive, with a large initial "K" and a long, sweeping underline.

Kurt Riesenberg  
Executive Director  
SPFA