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OSHA Docket Office  
Docket No. OSHA-2012-0023  
U.S. Department of Labor, Room N-2625  
200 Constitution Ave, NW  
Washington, DC 20210

*Submitted electronically to [www.regulations.gov](http://www.regulations.gov)*

Re: Comments on the Request for Information Regarding Chemical Management and Permissible Exposure Limits

Dear Sir or Madam:

The International Fragrance Association, North America (IFRA North America) and its members appreciate this opportunity to respond to OSHA's request for information (RFI) regarding updating OSHA's permissible exposure limits (PELs) and other strategies to reduce and control exposures to chemicals in the workplace.<sup>1</sup>

Immediately below, we describe who we are and summarize the key points of our comments. The balance of this document then explains our comments in greater detail.

#### *Interest of IFRA North America*

IFRA North America is the principal trade association for the fragrance industry in the United States and Canada and represents over 90% of all fragrances developed and sold in the regions. Our member companies create and manufacture fragrances and scents for home care, personal care, home design and industrial and institutional products, all of which are marketed by consumer goods companies. IFRA North America also represents companies that supply fragrance ingredients, such as essential oils and other raw materials, used in perfumery and fragrance

The members of IFRA North America are committed to understanding the potential for chemical exposures in the workplace and preventing or minimizing those exposures to protect their workers. This commitment is demonstrated through continually reviewing and discussing the science regarding potential chemical hazards and developing best

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<sup>1</sup> 79 Fed. Reg. 61384 (Oct. 10, 2014). Earlier this year, OSHA extended the comment period until October 9, 2015. See 80 Fed. Reg. 15702 (March 25, 2015).

practices and guidance documents to promote awareness within our industry. Representatives from our member companies meet several times each year to discuss priority issues and to share experiences in order to improve workplace safety and health performance across the industry. IFRA North America members also support the Research Institute of Fragrance Materials (RIFM), the scientific arm of IFRA, which conducts comprehensive science programs covering all relevant human health endpoints, maintains the world's largest and most complete database on fragrance materials, and offers education and guidance on scientific, safety and regulatory issues that are relevant to the fragrance industry.<sup>2</sup>

IFRA North America members are subject to OSHA regulations, including the PELs. As explained below, in many cases they use chemicals for purposes, or in ways, that are not typical of the largest users of those chemicals. Many of them are also small businesses.

For all these reasons, IFRA North America and its members have a vital interest in the issues addressed by the RFI.

#### *Executive Summary*

*OSHA should retain the PELs as the core element of a comprehensive, risk-based approach to controlling occupational exposure to air contaminants.* Occupational exposure limits (OELs) like the PELs represent the fundamental element of such a risk-based approach. They allow the inhalation risks of specific occupational settings to be validly and comparably assessed. Ultimately, all other approaches to protecting against air contaminant risks require OELs in order to validate them and quantify the benefit they provide.

*Regulatorily-driven substitution is not a viable approach for the fragrance industry.* Active fragrance ingredients are essentially non-fungible. Replacing any of the ingredients in a given fragrance would almost always result in *an entirely different fragrance*. This is fundamentally different than most other chemical product manufacture, where it may well be that one or more chemicals in a formulation – say, for a lubricant – can be satisfactorily replaced by another chemical that has the same relevant performance characteristic.

*OSHA should propose a “performance-based” control banding approach.* Hazard banding is a risk-based, non-OEL approach that could provide a workable, broad-brush alternative to supplement the current, inadequate process of regulating air contaminants on a chemical-by-chemical basis. The National Institute for Occupational Safety and Health (NIOSH)'s “Occupational Exposure Banding Process” is arguably the most advanced and robust hazard banding system to date. OSHA should coordinate with NIOSH and should seek comment on that system, and then should adopt such a system as

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<sup>2</sup> Information about RIFM is available at [www.rifm.org](http://www.rifm.org).

a guidance or regulation. This is the single most effective step OSHA could take to improve protection of workers from air contaminants. It could also greatly simplify, for both manufacturers and their customers, the process of protecting workers from exposures to air contaminants.

In parallel, or subsequently, OSHA should seek public comment on a guidance document that links suggested control strategies to a hazard banding system. If the hazard banding system is a regulation, that regulation should adopt a performance-based approach to any OSHA control banding guidance. The identified control measures should be a safe harbor, with employers free to choose more appropriate control measures. OSHA should not mandate particular control measures for particular hazard band boxes. Performance-based control banding would be legally defensible, whereas mandatory control banding likely would not be. The problems of mandatory control banding would be particularly acute for the fragrance industry, where many chemicals are used for purposes that are not the most common uses of those chemicals across industries generally.

If OSHA proceeds with an effort to adopt a hazard banding system, IFRA North America would be interested in discussing with OSHA the possibility of developing a fragrance-industry-specific guidance document that could be referenced by OSHA. This document could address both (i) application of a hazard banding system to common fragrance ingredients and (ii) possible control strategies for particular boxes on the matrix.

*A task-based system would not work for the fragrance industry (among others). Fragrance manufacturers' operations are simply too diverse.*

#### *Discussion*

### **I. OSHA Should Retain the PELs as the Core Element of a Comprehensive, Risk-Based Approach to Controlling Occupational Exposure to Air Contaminants**

All concerned recognize that the PELs are almost 40 years old and that a significant number of them are in serious need of updating to reflect current understanding of chemical interactions and modern-day technologies. We also agree that it is unrealistic to expect that there will ever be PELs for the great majority of chemicals that are in commerce in significant amounts in the United States.

Nonetheless, IFRA North America believes that PELs must continue to serve as the cornerstone of risk-based approach to addressing occupational exposure to air contaminants. As a practical matter, the degree of hazard associated with different air contaminants varies over multiple orders of magnitude. Only a risk-based approach can assure that a given contaminant is managed with the appropriate degree of control. From the perspective of OSHA regulation, a risk-based approach is also crucial to ensuring that OSHA meets the requirement of the *Benzene* decision – i.e., that it identify a “significant

risk” of “material” health impairment before regulating under Section 6(b) of the OSH Act.<sup>3</sup>

Occupational exposure limits (OELs) like the PELs represent the fundamental element of such a risk-based approach. OELs are derived rigorously from a toxicological database, using a consistent methodology to account for completeness of the dataset. As a result, they allow the inhalation risks of specific occupational settings to be validly and comparably assessed. Ultimately, all other approaches to protecting against air contaminant risks require OELs in order to validate them and to quantify the benefit they provide.

OSHA’s PEL regulations should be updated to serve as the core of a national, risk-based approach to regulating air contaminant exposures in the workplace. IFRA North America understands the challenges inherent in updating the PELs that OSHA addresses in Part IV of the RFI. We are not commenting in any detail on those issues, as we expect that many other, much larger groups will. Our principal comment in this connection is to urge OSHA to focus on a priority subset of air contaminants that present the greatest risk:

- First, OSHA could use the results from EPA’s most recent Chemical Data Reporting Rule<sup>4</sup> to identify the hundreds of the chemicals with currently listed PELs that are no longer used, or that do not have any significant potential worker exposure. OSHA could delete these or place them in an appendix to the PELs, or at least classify them internally in a no-further-action bin.
- For the remaining chemicals, using the potential worker exposure information gathered from EPA and the best-available, governmental or privately-established OELs (not necessarily PELs), OSHA could then conduct a national, screening-level risk appraisal, as it did after the *AFL-CIO* decision,<sup>5</sup> to determine which chemicals have (i) the greatest potential workplace exposures and (ii) the most demonstrably out of date PELs – or no PELs at all.
- OSHA could then initiate PEL rulemakings, depending on its available resources, on the chemicals presenting the highest risks.

IFRA North America agrees, however, that no matter what changes OSHA adopts to the PEL rulemaking process, it will not in the foreseeable future have adequate resources to update all or even many of the PELs. And the universe of chemicals in active commerce

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<sup>3</sup> *Industrial Union Dep’t v. American Petroleum Inst.*, 448 U.S. 607, 639-40 (1980).

<sup>4</sup> The CDR collects data on manufacturing, processing and use of chemicals. Companies submitted the first round of CDR data in 2012. They will be submitting the next round of CDR data, involving several lower reporting thresholds, between June and September of next year. See <http://www2.epa.gov/chemical-data-reporting/how-report-under-chemical-data-reporting>. If OSHA concludes that the CDR data is insufficient for its purposes, it could ask EPA to issue a targeted TSCA § 8 rule (e.g., the PAIR rule) to get specific data.

<sup>5</sup> *AFL-CIO v. OSHA*, 965 F.2d 962, 978-79 (11<sup>th</sup> Cir. 1992).

but without PELs will only continue to grow. In Part III below, we discuss why a “performance-based control banding” approach is the only non-OEL approach that has the capability to both address this universe and meet OSHA’s legal constraints under Section 6(b). First, however, we explain why the notion of substitution is problematic for our industry.

## **II. Regulatorily-Driven Substitution Is Not a Viable Approach for the Fragrance Industry**

IFRA North America recognizes that substitution is the second step in the hierarchy of exposure control practices (after elimination) and is generally a good practice. But substitution is fundamentally, and perhaps uniquely, incompatible with the fragrance industry. IFRA North America would strongly oppose any effort to mandate (or coerce) substitution of active fragrance ingredients.

Active fragrance ingredients (as opposed to carriers like alcohol) have a single function: in conjunction with other such ingredients, they volatilize and produce a unique response in the smell receptors of human beings. A relatively small universe of animal and plant extracts and synthesized chemicals is used to produce most fragrances. Most of these substances are well-known and have been in commerce for decades, if not centuries or millennia. The key to manufacturing a successful fragrance is determining which of these chemicals to use and their precise proportions – both highly valuable trade secrets.

These substances are essentially non-fungible. Replacing any of the ingredients in a given fragrance would almost always result in *an entirely different fragrance*. This is fundamentally different than most other chemical product manufacture, where it may well be that one or more chemicals in a formulation – say, for a lubricant – can be satisfactorily replaced by another chemical that has the same relevant performance characteristic.

The conventional approach to substitution is a precautionary one: substitution is urged where test data suggest that a chemical might be substituted for another because the former appears to be incrementally of lesser health or environmental concern. However, because eliminating a fragrance ingredient typically means eliminating the fragrances that use it, the fragrance industry has instead focused on developing a thorough understanding of fragrance ingredients. RIFM conducts extensive research, testing and constant monitoring of all scientific literature and technology available and adds the results to what is already the largest and most comprehensive source, worldwide, of physical-chemical, toxicological and eco-toxicological data, literature and information on safety evaluations associated with known fragrance and flavor materials.

This is not to say that fragrances have not been reformulated in recent decades. To the contrary, ingredients used in fragrance mixtures are regularly evaluated for safety by RIFM and an independent Expert Panel. If an ingredient is determined by the Expert

Panel to be unsafe under certain conditions, the Panel develops a Standard restricting or prohibiting its use. These Standards are then customarily adopted by IFRA and incorporated into the IFRA Code of Practice. Adherence to the Code is condition of IFRA membership. A good example of this process in action is Musk Ambrette, an ingredient commonly used in fragrances for its 'musky' note until the fragrance industry banned its use in 2002 due to potential skin toxicity. These types of ingredient bans and restrictions are reflected in updates to the Standards issued every two years. In this respect, the fragrance industry is actually among the progressive worldwide: rarely do industries take such economically-painful steps collectively and voluntarily.

In the fragrance industry, however, substitution must be reserved for cases where an ingredient simply cannot be used safely as a fragrance ingredient. As just explained, the industry is already well-positioned to make those determinations. Any regulatory effort by OSHA that had the intent or effect of forcing a broader, more precautionary approach to substitution onto IFRA North America members or their downstream customers would constitute a fundamental threat to our members' businesses. We would strongly resist such an approach.

### **III. OSHA Should Propose a Performance-Based Control Banding Approach**

For the reasons explained in Part I above, IFRA North America agrees with OSHA that it is "impractical to solely rely on OELs,"<sup>6</sup> and that everyone concerned would benefit from a workable, broad-brush alternative that could supplement the current, inadequate process of regulating air contaminants on a chemical-by-chemical basis. In this part of our comments, IFRA explains why the best candidate for such an alternative approach is occupational exposure banding (also known as "hazard banding"). As we explain below, hazard banding offers a risk-based, non-OEL approach to addressing the risks of essentially all air contaminant hazards in the workplace. In particular, employers and employees would benefit most optimally from a control banding approach that combines (i) a validated or widely-accepted hazard banding system and (ii) guidance that describes potential control strategies keyed to the appropriate various squares of the hazard banding matrix.

The fastest way to improve workplace health would be for OSHA to adopt this entire system as guidance. OSHA has spent most of the last decade asking how it should update the PELs or otherwise improve workplace exposure to air contaminants. Any rulemaking it initiates in the coming years to accomplish this task will also take most of a decade, if the past is any guide. OSHA could issue guidance on these topics much, much more quickly. And so long as that guidance conforms with OMB's Final Bulletin for

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<sup>6</sup> 79 Fed. Reg. 61409.

Agency Good Guidance Practices, OSHA should not have to worry about litigants successfully challenging the guidance as a de facto legislative rule.<sup>7</sup>

IFRA North America is open, however, to OSHA conducting a rulemaking to establish what might be called a “performance-based control banding system”; *i.e.*, a mandatory hazard banding system that leaves to employers’ discretion which control strategies to employ.

The sure way for OSHA to seize defeat from the jaws of victory, however, would be to promulgate a “mandatory control banding system”; *i.e.*, a rule that required employers to implement particular controls keyed to the hazard banding matrix. Such a system would inevitably produce under- and over-control situations and would likely not be technically or economically feasible.

We expand on all of these points below.

A. OSHA should seek public comment on a proposed hazard-banding system

Hazard banding is the most efficient and effective way for employers to assess the potential inhalation (and other hazards) of various materials. It has numerous potential virtues:

- It can allow chemical hazards to be characterized based upon far less information than is required to set an OEL. Hazard banding systems classify chemicals into a small number of hazard categories (generally three to five). Employers can then choose how to manage exposures to those chemicals based on their categorization.
- Because hazard banding systems typically consider multiple health endpoints, they also offer the potential to protect workers from a greater range of hazards than an OEL-based system that is focused solely on inhalation hazards.
- Hazard banding can allow chemicals to be categorized based on hazard statements from the Global Harmonized System (GHS) or other classification and labeling schemes –establishing a clear and simple linkage between hazard communication and risk management.
- Hazard banding can be implemented by non-experts –but it can also enable experts to categorize chemicals more definitively where adequate data exists.

Multiple entities have developed hazard banding systems, the most notable of which are the UK Control of Substances Hazardous to Health (COSHH) and AIHA Workplace Environmental Exposure Levels (WEEL) systems.<sup>8</sup>

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<sup>7</sup> See 72 Fed. Reg. 3432 (Jan. 25, 2007). Most importantly, the Bulletin instructs that guidance documents “[n]ot include mandatory language such as ‘shall,’ ‘must,’ ‘required’ or ‘requirement,’ unless the agency is using these words to describe a statutory or regulatory requirement, or the language is addressed to agency staff and will not foreclose agency consideration of positions advanced by affected private parties.” *Id.* at 3440 (§ III.h).

As the RFI notes, the National Institute for Occupational Safety and Health (NIOSH) has developed a hazard banding system that it has been validating for the last year or so, along with an accompanying web-based tool. By the time this process is finished, the NIOSH system will arguably be the most advanced and robust hazard banding system to date.

The fullest descriptions of the NIOSH system are contained in Powerpoint presentations by NIOSH staff from April 2014 and June 2015 (pdf files attached).<sup>9</sup> As they describe:

- The system classifies materials into five bands, with “A” representing lowest risk and “E” representing highest risk.
- The bands are keyed to the hazard classes and hazard categories established by the GHS hazard communication system for eight standard toxicological endpoints or health outcomes.
- The system has three tiers of application:
  - At the lowest, “qualitative” tier, any health and safety generalist can assign chemicals to bands C through E, based simply on the risk phrases or GHS hazard statements contained on the material’s Safety Data Sheet or product labeling. Slides 18-34 of the April 2014 slides show how this can be done. The system is inherently conservative, as it does not allow chemicals to be assigned to bands A or B based solely on hazard communication classification.
  - At the second, “quantitative” tier, a skilled industrial hygienist can assign a chemical to any band based on quantitative data from authoritative sources. Example sources are list on slide 17 of the April 2014 slides. Slide 22 of the June 2015 slides shows how Tier 2 would work for acute toxicity: The system assigns ranges of LC<sub>50</sub> or LD<sub>50</sub> values to bands A-E. An industrial hygienist could then assign a chemical to the appropriate band depending on which range included an authoritative LC<sub>50</sub> or LD<sub>50</sub> for that chemical.
  - At the third, “weight of the evidence” tier, an experienced industrial hygienist or toxicologist can review the available scientific literature for a chemical and determine a critical study from which a toxicological point of departure can be chosen to make a definitive assignment to a band.

NIOSH has conducted several rounds of validation of the Tier 1 process. Using 744 chemicals for which there are well-established OELs, NIOSH had volunteers assign chemicals to hazard bands based on their hazard statements. They found that, for over 80% of the chemicals, the volunteers assigned the chemicals to the band that they

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<sup>8</sup> The RFI discusses COSHH at

<sup>9</sup> L. McKernan & M. Seaton, “NIOSH Occupational Exposure Banding Process” (April 2014); L. McKernan, et al., “NIOSH Occupational Exposure Banding Process: Validation is the Difference” (June 2015).

“belong” in, based on their OELs, or to a more restrictive band. *See* slides 13-18 of the June 2015 slides.

NIOSH has also conducted at least two validation rounds of the Tier 2 process. In the first, using 102 chemicals, NIOSH evaluated several questions, including whether users assigned the chemicals to the same bands as they would be assigned based on their OELs, and whether new and expert users assigned chemicals similarly. *See* slides 23-27 of the June 2015 slides. As slide 26 shows, the results for 53 chemicals with OELs were that all but one were assigned to the right band or a more restrictive one. NIOSH conducted a second validation round on June 16, the results of which have not yet been made public, and it is currently planning a public meeting for a third validation round. *See* slides 28 and 30.

Finally, NIOSH is developing a web-based tool that will facilitate implementation of Tiers 1 and 2. *See* slides 31-33 of the June 2015 slides.

IFRA North America urges OSHA to coordinate with NIOSH on this project. When NIOSH completes its work, OSHA should publish the system for public comment. OSHA should particularly seek comment on the Tier 1 process. Based on the findings of its Tier 1 validation (i.e., that Tier 1 is not as conservative as an OEL about 20% of the time), NIOSH staff recommend that users proceed to Tier 2 in any case where Tier 1 does not lead to assigning a chemical to Tier E. *See* slide 18 of the June 2015 slides. IFRA North America questions this conclusion, which equates to simply scrapping Tier 1 and saying “Default to Band E unless you use Tiers 2 or 3”:

- We note that many, perhaps half of the “insufficiently protective” results are an artifact of the bands being drawn at or below given OEL values. *See* slides 14 and 16 of the June 2015 slides. For example, the boundary between bands E and D for vapors is an OEL of 0.1 ppm – but the system defines Band E as spanning OELs of 0.0 to  $\leq 0.1$ . If the span was from 0.0 to  $< 0.1$ , about half of the examples of chemicals being inappropriately assigned to Band D would disappear.
- We also note that, at Tier 1, users cannot assign chemicals to Bands A or B. So even the most “insufficiently unprotective” assignments can only be to Band C, which is the middle degree of hazard.
- Finally, we note that the “insufficiently protective” assignments may well have resulted from improper classification of the chemical by the manufacturer – i.e., the fault likely lies in the SDS or label for the chemical – and hence other precautionary steps that persons would take in reliance on those classifications would also be potentially less protective than they should be. The solution here is to improve understanding of and compliance with the GHS, not to unduly limit the use of systems, like hazard banding, based on it. As NIOSH said near the conclusion of its April 2014 slides (slide 37): “If you are too protective, the tool has no value for stakeholders.” After all, the point of OSHA’s RFI exercise is not to develop the perfect solution, but to devise a better solution than the current,

admittedly very unprotective situation of old and nonexistent PELs. The NIOSH system is clearly better even in its current form.

As noted above, we believe that, once its validation steps are concluded, NIOSH will have produced the most sophisticated and reliable hazard banding system extant. Rather than reinventing the wheel, OSHA should seek comment on issues associated with adopting the NIOSH system. The most expeditious approach would be for OSHA to propose using the NIOSH system as a guidance document. OSHA could also propose the NIOSH system as part of a regulation that would supplement the PELs by requiring employers to apply the system to all exposures to hazardous chemicals occurring in their workplaces. IFRA North America could potentially be supportive of such a regulation, depending on what OSHA required employers to do with the results. That issue is discussed next.

- B. OSHA should seek public comment on a guidance document that links suggested control strategies to a hazard banding matrix

The point of hazard banding is to simplify the process of determining what sort of risk management steps are appropriate for a given chemical. Hazard banding uses limited hazard information to classify chemicals into a matrix of boxes within bands. Control banding completes the process by suggesting or prescribing particular control measures for particular boxes on the hazard banding matrix. Control banding is premised on the fact that many exposure/control circumstances are common across workplaces and have been solved. If OSHA adopted a hazard banding system, whether as guidance or as a rule, it would be helpful to employers if OSHA also issued a guidance document that would suggest particular control strategies for the various boxes on the hazard banding matrix.

OSHA could do this in two stages: i.e., it could (1) seek comment on and then finalize a hazard banding system, and then (2) seek comment on and then finalize a proposed control strategy guidance. Alternatively, OSHA could propose the hazard banding system and control banding guidance at the same time, and then finalize both together. The latter approach might save time, but it would present a more complex challenge for commenters and OSHA alike, as changes in one document might affect the other and trigger the need for an additional round of comments.

Assuming OSHA adopts a regulation that requires hazard banding, that regulation should adopt a “performance-based” approach to any OSHA control banding guidance. Under a performance-based approach:

- The strategies suggested in the guidance would be a safe harbor; i.e., an employer adopting them would be deemed to be in compliance with the General Duty Clause (absent that employer’s awareness of a widely-recognized hazard in its particular workplace not anticipated by the guidance).
- But employers would remain free, based upon the results of the hazard banding system, to adopt different control strategies that are more appropriate to the

particular circumstances of their workplaces and products. By “most appropriate,” we mean risk management steps that would:

- substantially reduce any significant risk of material impairment of health or functional capacity; and
- be technologically and economically feasible.

At a minimum, employers would be expected to reduce exposures or otherwise protect employees to a degree necessary to meet the General Duty Clause.<sup>10</sup>

The foregoing is the single most effective step OSHA could take to improve protection of workers from air contaminants, as it would create a broad-brush process by which employers could understand and act to protect their employees from all toxic endpoints associated with exposures to all hazardous chemicals in their workplaces. It could also greatly simplify, for both manufacturers and their customers, the process of protecting workers from exposures to air contaminants, particularly those without PELs.

OSHA should not propose a “mandatory control banding” system, i.e., one that would:

- require particular control strategies for particular boxes in the matrix; or
- set a specified control strategy as the default that must be followed unless the employer can justify a different one.

The unavoidable fact is that control banding is simply too “one-size-fits-all” to be justifiable across the universe of workplaces. Because a control banding system would specify a finite list of specific controls (or types of controls) for the wide range of exposures that would fall within any given box on a hazard band matrix, control banding would be certain to produce examples of control requirements that were excessive or inappropriate. It would also produce cases of “under-control.” Hazard banding is also too imprecise to justify requiring particular controls, especially if chemicals are categorized based on GHS hazard statements. A recent NIOSH review of the literature on control banding, and efforts to validate the approach, cited concerns about its effectiveness and potential to produce “potentially inappropriate workplace confidence” in it.<sup>11</sup> NIOSH concluded that “[a]dditional development, evaluation, and discussion are required before widespread implementation of control banding in the United States can be recommended.”<sup>12</sup>

The problems of mandatory control banding are particularly acute for the fragrance industry, where many chemicals are used for purposes that are not the most common uses of those chemicals across industries generally. Thus, control measures that would be

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<sup>10</sup> See 29 U.S.C. § 654(a)(1) (“Each employer . . . shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees.”).

<sup>11</sup> NIOSH, QUALITATIVE RISK CHARACTERIZATION AND MANAGEMENT OF OCCUPATIONAL HAZARDS: CONTROL BANDING 40 (Aug. 2009), available at <http://www.cdc.gov/niosh/docs/2009-152/pdfs/2009-152.pdf>.

<sup>12</sup> *Id.* at vii.

appropriate for the most common uses would be a poor fit, and possibly completely inapplicable, to fragrance industry uses of those chemicals.

If OSHA proceeds with an effort to adopt a hazard banding system, IFRA North America would be interested in discussing with OSHA the possibility of developing a fragrance-industry-specific guidance document that could be referenced by OSHA. This document could address both (i) application of a hazard banding system to common fragrance ingredients and (ii) possible control strategies for particular boxes on the matrix.

- C. Performance-based control banding would be legally defensible; mandatory control banding likely would not be

A performance-based control banding system would be certain to result in a substantial reduction in significant risk in many cases. Under such a system, employers generally would implement suggested controls, but would be free not to do so where a significant risk was actually not present. Employers would also be free to adopt different control measures where the recommended ones:

- would not reduce the risk substantially;
- would not be technically feasible; or
- would reduce the risk less-cost effectively than another strategy.

In these instances, employers would be required to pick another control strategy that would reduce the risk substantially, would be technically feasible, or would be more cost-effective. On a net basis, therefore, IFRA North America is confident that a voluntary control banding system would meet OSHA's legal obligations: it would substantially reduce significant risks and be technologically and economically feasible.

Conversely, we doubt that a mandatory control banding system would meet the requirements of Section 6 of the OSH Act. Because of its one-size-fits-all nature and the over- and under-control problems that would result from it, noted above, such a system would regularly impose controls on workplaces that did not substantially reduce significant risks, and that were not technically or economically feasible at particular workplaces or types of workplaces.

#### **IV. A Task-Based System Would Not Work for the Fragrance Industry (Among Others)**

OSHA has recently begun exploring task-based approaches; e.g., "Table 1" in the proposed standard for respirable crystalline silica, addressing construction activities.<sup>13</sup> Such an approach may be appropriate if, as with the silica standard, it were an optional compliance alternative to the PEL. Thus, a task-based approach might be useful as a compliance alternative to a performance-based control banding system. A task-based system could work for some fragrance industry operations.

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<sup>13</sup> 78 Fed. Reg. 56274 (September 12, 2013).

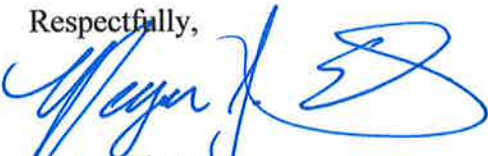
But IFRA North America would oppose a task-based system as the basis for a non-OEL regulatory system, because our members' operations are too diverse. For example, all fragrance manufacturers compound (i.e., create mixtures of) materials, but some of those compounding processes involving pumping ingredients, while others involve pouring them. Some processes use closed systems, while some use open ones. A task-based system would be even more "one-size-fits-all," and more inappropriate for that reason, than a mandatory control-banding system.

*Conclusion*

IFRA North America shares OSHA's concern about the growing inadequacy of the PELs. We strongly oppose substitution as an alternative, however. Rather, we urge OSHA to seek public comment on NIOSH's occupational exposure banding process and to adopt it as either guidance or regulation. It would be useful if OSHA also issued guidance suggesting particular controls for particular hazard band boxes. If OSHA adopts a hazard banding regulation, however, it should adopt a performance-based approach to control banding, one that provides employers with a safe harbor but also allows them to choose other controls when they are more appropriate. If OSHA pursues a hazard-banding approach, we would be interested in working with OSHA to develop a fragrance-industry-specific guidance document. A task-based approach would be useful as a supplemental approach.

If you have any questions about these comments, or would like additional information, please do not hesitate to contact me at 571-317-1500 or [mekstrom@ifrana.org](mailto:mekstrom@ifrana.org).

Respectfully,



Megan Ekstrom  
Director, Government Affairs

Attachments: NIOSH April 2014 slides  
NIOSH June 2015 slides