



March 23, 2011

Assembly Member William W. Monning  
State Capitol  
PO Box 942849  
Sacramento, CA 94249-0027

Via e-mail:

RE: AB 553

Dear Assembly Member Monning:

On behalf of the American Industrial Hygiene Association (AIHA) and our California members, I am writing to indicate our opposition to your Assembly Bill 553, regarding the rights of workers to be protected from exposure to hazardous substances and toxic materials in the workplace.

AIHA is the premier association serving the needs of professionals involved in occupational and environmental health and safety practicing industrial hygiene in industry, government, labor, academic institutions, and independent organizations. The AIHA mission is to promote healthy and safe environments by advancing the science, principles, practice, and value of industrial and occupational hygiene. AIHA is not only committed to protecting and improving worker health, but the health and well-being of adults and children in our communities. One of AIHA's goals is to bring "good science" and the benefits of our workplace experience to the public policy process directed at worker health and safety.

AIHA members in California and around the country share your interest and commitment to ensure that workers and others are protected from hazards and hazardous materials and assurance that these workers and others are provided the highest degree of health and safety protection.

Upon introduction of AB 553, AIHA forwarded the bill to the AIHA Risk Assessment Committee for review and comment. To assist you and others as this legislation moves forward, AIHA and our Risk Assessment Committee hope you will consider these comments and recommendations.

The basis for AIHA opposition is as follows, with more detail available in the attachment:

1. AB 553 eliminates the scientific consensus process for setting occupational exposure standards in California, drastically reducing the ability to draw upon the best science and resources available. This runs counter to inclusivity, transparency and good science by anyone's measure.

2. AB 553 applies an inappropriately higher standard for assurance of employee protection than that used by other standards-setting organizations; furthermore, it conflicts with the current Labor Code. While this “inappropriately higher standard” could be construed as “more protective”, it is not scientifically defensible.
3. AB 553 potentially poses an unnecessary and extremely serious negative financial impact on employers and the California business economy. Practically speaking, AB 533 will be very difficult for employers to implement and Cal-OSHA to enforce.

The attachment provides you with a complete look at this issue from the perspective of the environmental and occupational health professionals who deal with these issues on a daily basis.

Should you have any questions or need additional information regarding AIHA’s expertise and interest in this area or questions, do not hesitate to contact me. Our local sections in California, as well as the California Industrial Hygiene Council (CIHC), will also be contacting you regarding this legislation.

Sincerely,



Michael T. Brandt, MPH, Dr. PH, CIH, PMP  
AIHA President

cc: Chris Laszcz-Davis, President, CIHC  
Bill Beadie, Chair, AIHA Risk Assessment Committee  
Len Welsh, Cal-OSHA  
Leonard Robinson, Acting Director, DTSC, Cal-EPA  
Catherine Barankin, Sacramento Advocacy  
Peter O’Neil, AIHA Executive Director  
Aaron Trippler, AIHA Director Government Affairs

## **ATTACHMENT: AIHA SPECIFIC COMMENTS ON ASSEMBLY BILL 553**

### **A. General Duty for Employee Protection**

#### **Disconnect Between California Labor Code 144.6 and AB 553**

##### **Differences in Definition of “No Significant Risk” and “No Harm”:**

In its introduction, AB 553 requires the Standards Board to “establish occupational exposure limits which have an emphasis on obtaining the highest degree of health and safety protection”. In paragraph (b) (2), it states that the Board “shall comply with Section 144.6 and place primary emphasis on attainment of the highest degree of health and safety protection. For carcinogens, the PEL shall ensure that there is no significant risk to employee health, in accordance with paragraph (5). For toxicants that cause or contribute to reproductive, developmental, or serious physical harm, the PEL shall be at a level at which no harm occurs”.

However, Section 144.6 of the existing Labor Code actually states “In promulgating standards dealing with toxic materials or harmful physical agents, the Board shall adopt that standard which most adequately assures, to the extent feasible, that no employee will suffer material impairment of health or functional capacity even if such employee has regular exposure to a hazard regulated by such standard for the period of his working life”.

In its requirement that “no significant risk” and “no harm” will occur, the language used in the proposed AB 553 sets a different (and much higher) standard for assurance of employee protection than that articulated in Section 144.6 of the Labor Code. In fact, this paragraph of the Labor Code goes on to state “In addition to the attainment of the highest degree of health and safety protection for the employee, other considerations shall be the latest available scientific data in the field, the reasonableness of the standards, and experience gained under this and other health and safety laws”. These “other considerations”, which presently exist in the Labor Code, are not included as appropriate possible modifiers in the language used in AB 553.

### **B. Elimination of Scientific Consensus**

Pursuant to California Labor Code Section 144.6, and in response to a request from the Cal/OSHA Standards Board, DOSH convened an Advisory Committee which ultimately published and implemented its Policy and Procedure for the Advisory Committee Process for Permissible Exposure Limit (PEL) Updates to Title 8, Section 5155, and Airborne Contaminants. The purpose of this PEL process document is to ensure transparency in the process of developing enforceable consensus standards. In fact, **California already has a very robust PEL process, and, through its ongoing PEL development and revision program, the most protective PELs of any state in this country.**

This final Policy and Procedure document, as presented to the Cal/OSHA Standards Board on March 15, 2007, established the Health Expert Advisory Committee (HEAC) and Feasibility Advisory Committee (FAC). The role of the HEAC is to consider the need and scientific basis for recommending to the Division new or revised health-based exposure levels for airborne contaminants. The HEAC, with the assistance of DOSH staff, is tasked to research current scientific literature and sources that include government agencies such as National Institute of Occupational Safety and Health (NIOSH), Cal-EPA Office of

Environmental Health Hazard Assessment (OEHHA), United States Environmental Protection Agency (USEPA), the National Toxicology Program (NTP) and other recognized standards setting organizations. Recommendations and studies of private industries, the military and international organizations may also be used as reference sources. The role of the FAC is to provide an opportunity for interested parties to comment on technical and economic feasibility and reasonableness of HEAC-recommended PELs.

AB 553, on the other hand, would require that any PEL adopted by the Cal/OSHA Standards Board for a given substance be the same as the risk-based occupational exposure level determined for that substance by OEHHA or other listed agency, effectively establishing OEHHA as the HEAC and eliminating the scientific consensus process. OEHHA risk assessments are not, and should not be, the only scientific resource that contributes to the occupational exposure standards development process. As indicated in the DOSH PEL process document, OEHHA is an important resource, but still only one of several resources that the HEAC uses in determining its health-based recommendations for PELs.

### **C. Quantitative Risk Assessment**

#### **Inconsistency in Models, Results, Interpretation and Risk Management Controls**

##### **Indefensible Science, Lowest Level Defaults:**

AB 553 requires that any “health-based occupational exposure limit” promulgated by the Standards Board be based on a quantitative risk assessment developed by a specified agency. The list of “approved” providers of the indicated quantitative risk assessment includes the U.S. EPA, NIOSH, NTP and the California EPA (in this case, OEHHA). Interestingly enough, several other organizations’ quantitative risk assessments (American Conference of Governmental Industrial Hygienists (ACGIH); and other recognized national and international occupational exposure standards setting organizations) are not included and should be.

The newly proposed Labor Code Section 144.8(b) (4) referenced in AB 553 requires use of the lowest quantitative risk level to determine the “health-based” Occupational Exposure Level. Paragraph (b) (1) of AB 553 states “The health-based OEL shall be calculated from the lowest quantitative risk assessment that addresses cancer or reproductive, developmental, or other serious physical harm”.

In most cases, this would default to the existing OEHHA quantitative risk levels established under Proposition 65, and would in essence use Proposition 65’s “no significant risk” levels for setting workplace exposure limits. These limits are set by OEHHA using a “no threshold dose” model, and require that these “no significant risk” levels assume no more than one excess case of cancer per 100,000 persons in the “exposed population”.

The quantitative risk assessments completed by OEHHA are, in general, far more conservative than those from the other organizations referenced, and will invariably lead to default use of the OEHHA quantitative risk assessment for determination of the subject PEL. This exclusion of other valuable information is scientifically inappropriate and unjustifiable, and will invariably lead to mandatory use of lowest level OEHHA-determined risk assessments as the default for setting PELs in California.

##### **Thresholds of Risk:**

The concept of “no threshold dose” flies in the face of science currently used to establish occupational exposure limits which are based on the concept that there IS a defined level of exposure below which

there is no significant risk of adverse health effects. This is in fact the derivation of the term "Threshold Limit Value" coined decades ago by the American Conference of Governmental Industrial Hygienists (ACGIH), the organization which has established occupational exposure limits for hundreds of chemical agents and whose TLVs are used as benchmarks for occupational exposure limits around the world.

In addition, the cancer risk model of 1:100,000 as the sole criterion for establishing occupational exposure limits has no unique basis as an appropriate model, and will, in combination with the "no threshold" approach, result in establishing exposure limits unreasonably low and far below those which would be set by many other recognized standard setting organizations.

Thus, AB 553 furthers the notion that carcinogens have no threshold and thus a level of "acceptably low" risk is presented as a regulated exposure limit. This level of 1 in 100,000 is in line with the risk warning trigger for California Proposition 65.

Of course, the other side of this coin is that non-carcinogens are assumed to have a threshold of adverse effect and that complete safety can be assumed (given high enough safety factors applied to known effect levels in animals or humans).

The objective truth of the matter is that population thresholds of risk for carcinogens may exist and thresholds for non-carcinogens in the vast majority of cases cannot be proven. In short, the distinction and assumed certainty which has grown to dominate regulatory thinking concerning these two types of health effect has very little basis in scientific fact. It has been argued in the past<sup>i</sup> and more recently<sup>ii</sup> that the evaluation of each type (i.e., cancer and non-cancer) of health effect should be harmonized. This issue has been thoroughly addressed in a recent publication by the National Academy of Sciences popularly known as "The Silver Book"<sup>2</sup>.

**The technical issue of establishing levels which are not scientifically defensible and which are totally inconsistent with occupational exposure levels established by all other recognized organizations should be a major factor in rejecting the provisions currently contained in AB 553.**

As mentioned above, this issue has been more thoroughly addressed NAS's "The Silver Book"<sup>2</sup>. Several primary points presented by the independent world-class scientists who served on the NAS panel, particularly as it relates to this proposed bill, are presented below:

- The evaluation of cancer and non-cancer health effects should undergo a harmonized process (as explained and outlined in the Silver Book). This recommended process can be done by any competent scientific body presumably including the proposed Standards Board. The final decision on the levels of acceptable risk at the established exposure limits will be a subjective determination by duly appointed members.
- Because of scientific uncertainty surrounding toxicological data, the process will result in the determination of a quantitative level of residual risk at any finite exposure level. In other words, "no harm" does not exist and is not a realistic concept.
- The scientific uncertainty associated with that determination is to be quantified and presented as part of the assessment. In other words, the uncertainty of the toxicological data used must be quantified as to its strength. The mere fact that toxicological data exists does not give the data relevance.

**No legislative body can appropriately mandate the establishment of exposure limits that provide “no harm”.** The following is offered as a possible rephrasing of the proper purpose of this or any similar legislation:

*“This bill would require that the Board, in promulgating standards dealing with certain toxic materials in the workplace, establish permissible exposure limits that meet specified criteria with regard to the estimated degree of health and safety protection provided by the best available scientific methods of prediction, considering formal input from the principal stakeholders but with the final decision on the exposure limits resting with the Standards Board.”*

#### **Risk Assessment Models:**

The variety of risk assessment methodologies, endpoints and assumptions (lowest to highest) can result in ranges that differ in magnitudes 100 fold. This is a huge range in varying outcomes and not necessarily defensible scientifically. Given the importance of performing a defensible risk assessment, its criteria and methodology should be standardized and its applicability well defined. This is not presently discussed in AB 533 whatsoever.

#### **D. Catastrophic Impact on Employers & the California Business Economy**

For California employers, the costs to comply with health-based standards governing occupational exposure limits are potentially significant. However, the costs of uncontrolled exposures can be devastating to the health of potentially exposed employees. Therefore, where exposure limits have been determined through a reasoned consensus process utilizing sound science, the costs of regulation are justified to assure protection of employee health.

However, the exposure limits which will be established under provisions of AB 553 would be so low that compliance, if even feasible, will be extremely difficult and extraordinarily costly. It is very likely that setting such low limits for chemicals which, in many cases are not even regulated in other jurisdictions, would essentially result in *de facto* “banning” of these substances in the California workplace.

In fact, one of the major provisions proposed in AB 553 is the requirement for determining availability of “safer alternatives” as part of the feasibility determination. Directionally, this may be a good idea, but from a practical perspective, this needs to be shored up with standardized methodology (none of which exists in the bill presently). In the more serious cases, California employers will be forced to comply with costly regulations, based on inappropriate “science”, establishing workplace exposure limits not experienced in other jurisdictions.

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<sup>i</sup> M.A. Jayjock, P.G. Lewis and J.R. Lynch: Quantitative Level of Protection Offered to Workers by ACGIH Threshold Limit Values (TLV) Occupational Exposure Limits, Am. Ind. Hyg. Assoc. J. 62: 4-11 (2001).

<sup>ii</sup> NAS: SCIENCE AND DECISIONS: Advancing Risk Assessment (2009), [http://books.nap.edu/openbook.php?record\\_id=12209&page=R1](http://books.nap.edu/openbook.php?record_id=12209&page=R1)